THE LANCET.

LECTURES

ON THE

THEORY AND PRACTICE OF PHYSIC,

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Lecture XXI.

Gentlemen,

Having treated pretty fully of *bloodletting* as a remedy for inflammation, we are now to consider *Counter-irritation*, which, in the largest sense of the term, embraces most of the means we are accustomed to employ, and upon whose efficacy any reliance can be placed.—There is no subject better deserving your attention; and the more so, as you will find it difficult to acquire the necessary information from books with regard to it.

Counter-irritation then consists in making a powerful impression on some part of the system, either mind or body, with the view of producing a change in the state of the living actions, (including of course those of the diseased part or organ) and in the hope, that the diseased part may afterward resume a healthy manner of acting: and this is, in fact, so often the result, as to fully justify the means employed, though these means in themselves, may be productive of much temporary inconvenience, and even violent disturbance in the system.

Counter-irritation may be either *mental* or *bodily*; that is to say, the impression may be first made on the *mind*, as the medium of influencing the bodily actions, (as by exciting the *passions* or *emotions* of mind) or directly upon the body itself, by agents foreign to it, which are both very various in themselves, and may be applied to various parts, with greater or less advantage, according to circumstances to be explained. Again, the impression may be either made upon the diseased part itself, or upon some other part, according as the treatment is intended to be *local* or *general*. It is the latter, that we are at present to consider.

With respect to employing the *mind* as the medium of impression, in order to influence disease, there is ample proof of the power of this to accomplish the purpose. Mental emotion is capable both of preventing, and of curing disease. Strong mental emotion of almost any kind, prevents the operation of *cold* in producing its usual ill effects; and it is probable that it tends to obviate many other occasional causes of disease, though it may likewise, at times, favour their action; as with respect to some *contagions* is believed to be the case. Terror has on various occasions cured epilepsy, as well as excited it; and a fit of the gout has often been suspended or removed by the same cause, as from an alarm of fire. The milder passion of hope has been observed to have a beneficial influence on some chronic affections, such as sea-scurvy. Notwithstanding, however, that the influence of mental emotions on disease is not to be questioned, it is seldom that we can have recourse to them as remedial agents, from the difficulty there is in regulating their effect. We cannot, so to speak, adjust the dose, so as to render them at once safe and effectual. Cases, however, will not unfrequently occur, in which they may be resorted to with advantage, but which it is difficult here to particularize.

Impression, for the purpose of *counter-irritation*, may be made on different parts of the body, determinable in some measure by the seat of the disease, as well as other circumstances. There is hardly any part indeed that is not capable of influencing more or less, by its condition, the rest of the system. Some parts are, however, preferable to others for the purpose, either as being more susceptible of impression in themselves, or as being within reach, or from more readily extending their influence over the rest of the system. I should enumerate the fol-

lowing as, upon the whole, the best adapted to the purpose:—1, the general sanguiferous system; 2, the stomach; 3, the intestinal canal; and, lastly, the skin. These all demand further notice, as they are not equally eligible under all circumstances, but require selection in their use.

The whole sanguiferous system may be acted upon by general *stimulants*, so as at times to influence beneficially many cases of inflammation. For this purpose, the essential oils, spices, camphor, ammonia, snake-root, and most other of the class of stimulants, and also the different preparations of antimony, have all long been in extensive use. In the course of operation of these medicines, where the surface of the body is kept warm, sweating is apt to take place; and hence they have been denominated *sudorifics*, as if this was their chief or sole effect, while the cure of the disease was generally ascribed to their carrying something noxious out of the system. Now this notion can not fairly be considered an unreasonable one, in respect to the time in which it was first adopted; seeing that inflammation, in so many instances, terminates spontaneously by sweating, which was therefore looked upon as the natural cure of the disease. It is not necessary however for us to adopt this notion, nor is it consistent indeed with the present state of physiological knowledge. The practice itself, nevertheless, may often be resorted to with advantage, though by no means indiscriminately.

The exhibition of general *stimulants* is not adapted to the most acute form of inflammation, especially as taking place in strong subjects, and in the first stage of the disease. In such cases, they would be likely to aggravate rather than to relieve. But in different circumstances, as in slight affections, occurring in subjects naturally weak, or who have been rendered so by the previous treatment; and also in the more advanced stages of inflammation; general stimulants, under the name of *sudorifics*, are often serviceable. As a general principle it may be stated, I think, as pretty near the truth, that as long as bloodletting is called for, these remedies are hardly admissible; while in almost all cases, they are rendered both more safe and effectual, by previous loss of blood. What I have now said applies equally to *idiopathic* fever, and other inflammations. Fevers, in fact, have been more generally treated by *sudorifics*, than by any other means; as you may see on referring to the writings of Sydenham, as well as a host of other writers both before and after his time. In *chronic* inflammations of parts that are naturally torpid, such as the lymphatic glands and ligamentous structures, *stimulants*, and those of an active kind, are unquestionably the best remedies.

I am inclined to think that the advantage derivable from the use of *mercury* in the cure of various chronic inflammations, may be explained on a similar principle, namely, that of producing *counter-irritation*, by the change it occasions in the vascular action of the whole system.—There are circumstances also of *acute* inflammation, in which it appears to me to be of eminent service; namely, in the latter stages of the disease, and when bloodletting has been practised to the proper extent. By thus having recourse to mercury, it is not improbable that a more sparing use of the lancet might suffice: this, if true, would doubtless be a great advantage. I have often treated pneumonia in this way, and satisfactorily; and I am further disposed to think, from observation, that mercury is really serviceable, as has been stated, in the cure of ordinary idiopathic fever. One can hardly separate the consideration of the action of mercury on the gums and neighbouring parts, from its effects on the system at large. It is extremely difficult indeed to produce these effects singly. In both ways, however, it may conduce to the general effect.

I before remarked that *bloodletting* itself might be considered as a sort of *counter-irritation* to the general system, the various actions of which it so strongly and speedily influences; and that its good effects were not to be wholly, if at all, ascribed to its weakening the system merely. Upon this view of the operation of bloodletting, there will be the less difficulty in understanding its good effects as a remedy for inflammation even in weak subjects, as it often unquestionably proves to be.

The *stomach* is a part that, on many occasions, may be usefully impressed, as a means of producing *counter-irritation* for the cure of inflammation. It is a part of easy access, very susceptible of impression by various means, and which quickly and powerfully affects by sympathy the rest of the system. These are sufficient reasons for the preference usually given to this organ, in the application of remedies,—to say nothing of their finding their way by this channel into the general circulation, an effect that is probably less frequent than has been supposed.

Medicines may be taken into the stomach, so as to produce either *nausea* or *vomiting*, or both, and often with the

effect of beneficially influencing inflammation. The practice indeed has long been in use, and is far from uncommon at present, though the principle upon which it acts has not always been sufficiently understood. Dr. Cullen places great reliance upon *nausea* as a remedy for fever and inflammation, and which he advises to be kept up by small and repeated doses of ipecacuanha or antimony. The greatest respect is always due to the practical suggestions of such a man as Dr. Cullen, who was seldom mistaken in his observation of facts, and always to be relied upon in his assertions. You will not doubt therefore that the practice I now allude to, is often a useful one, especially in addition to other means. Of late the Italian physicians have recommended large and frequent doses of *tartarized antimony* for the cure of inflammation, giving as much as six or eight grains at once. By this treatment, as they assert, *bloodletting* may be in a great measure dispensed with, even in the most active forms of inflammation. It is difficult to believe, *prima facie*, that so powerful a medicine as the *tartarized antimony* could be safely administered in such enormous doses; and it is my duty to state to you, that in numerous trials purposely made in this Dispensary, I have almost uniformly found the operation of the medicine to be in proportion to the quantity in which it was administered; so that I have always found myself compelled to desist, when the dose was carried as high as three or four grains. In many instances, repeated doses of a single grain have produced violent and distressing effects. One would be led to suspect, that the preparation used was not the same in the two cases.

Actual *vomiting* is of use in various cases of inflammation. It has long been employed in pulmonic inflammation, though in general with a different view, namely, that of promoting expectoration, which it probably does in some degree. I have seen it of great service in *lumbago*, and some other forms of rheumatism. It has been used also in *hernia humoralis*, when the disease has become stationary, and after bloodletting had been employed. Of late, it has been had recourse to in obstinate cases of *ophthalmia*, which bleeding had failed to cure.

Vomiting is a powerful remedy in putting a stop to fevers at their commencement, whether of the intermitting or continued kind; and it will occasionally do this in some even of a *specific* nature, as *scarlatina*. A few years ago, when emetics were more used than at present in the cure of fever, and when I was less acquainted with the advantages of bloodletting, I have very frequently witnessed their good effects in this way: and if it be so useful in the cases mentioned, it is easy to believe that the same remedy is applicable with advantage in many others. It is impossible to ascribe the good effects of *vomiting* in many of the cases above alluded to, merely to the evacuation produced by it, or the discharge of any thing noxious from the system; while they are easily referrible to the principle of *counter-irritation*. The great change induced in the actions of almost every part of the system, by the states both of *nausea* and actual *vomiting*, are too obvious to insist upon, and they appear adequate to the remedial effect observed.

This practice is not altogether free from objection in abdominal inflammation, on account of the mechanical violence necessarily exerted on the contents of this cavity in the act of vomiting. Where hernia exists, the practice is also liable to objection; as it is likewise where a tendency to apoplexy is present. The means of producing vomiting are of no great importance. The object being *counter-irritation*, it is obvious that the mildest means may not be the most effectual. It is a good general rule, that vomiting, for all the purposes mentioned, is rendered more safe, and probably more effectual also, by previous bloodletting, especially in diseases of the brain.

The *intestinal canal* is situated equally favourable with the stomach, for the purposes of *counter-irritation*. It is easy of access, sufficiently open to impression, and both by its extent, vascularity, and sympathy with other parts, affords a powerful medium of influencing the rest of the system. In acting upon this part too, we influence, in a secondary way, a number of other organs situated in the same cavity, and connected with it by similarity of office.

The almost sole object in acting upon the intestinal canal in the treatment of diseases, has hitherto been that of discharging its contents with greater frequency than usual, or, as we call it, of producing *purging*; upon the supposition, that something noxious was thus carried off, upon the retention of which the disease depended. This notion appears to have been entertained in all ages, down to the present time; and accordingly no class of remedies has been in such constant use as that of *cathartics* or *purgatives*, especially for the cure of inflammation. At the present day, the *stools*

are scrutinized with a degree of minuteness that is quite ridiculous, not to say disgusting; and standards have been established for their colour, consistency, quantity, and so forth; as if the whole *ars medendi* were confined to the night-table. Now nine times in ten, the changes observed in the alvine discharges, are the *effect* and not the *cause* of the disease. They may, no doubt, be usefully attended to, as indications of health, or otherwise; but in themselves, except in particular cases, they throw but little light upon the nature of the disease, nor do they in general suggest the proper mode of treatment. On many occasions, the changes observed in the state of the evacuations are the result of the very means employed to produce them; and thus often lead to improper practice. I might instance this in the case of children, in the healthiest of whom the doses of *calomel* and *scammony* ordinarily prescribed, will at any time produce the most unnatural and offensive discharges; the appearance of which again, is thought a sufficient reason for a repetition of the medicine; till at length actual, and often irremediable disease, is excited in the intestinal canal, if not throughout the whole cavity.

My object, Gentlemen, in making these remarks, is not to call in question the utility of *purgatives* on a great number of occasions, nor to dissuade you from a reasonable use of them; but to guard against excess, and especially to point out the false principles upon which they are frequently administered. When you consider the extent of surface upon which purgatives act, and the many other organs that are secondarily influenced by them; the irritability and vascularity of these parts altogether; and the great change in the balance of circulation that takes place under the operation of medicines of this description, it is easy to understand that they must be a powerful medium of influencing the general system, so as to become a source of *counter-irritation*, independent alike of the quantity or quality of the matters discharged. And it is in this point of view chiefly, that they are to be regarded as remedies for inflammation.

Purgatives appear to be of general use in inflammations of the head, neck, and skin, and that whether *acute* or *chronic*. On many occasions they may be trusted to alone, though they ought not to be allowed to supersede bloodletting in cases of greater magnitude. Like *emetics*, they may be considered as more effectual, when used after bleeding than before. In most inflammations of the alimentary canal, and of the abdominal viscera in general, they are of great importance. In *enteritis*, however, of an acute kind, and attended with absolute constipation, they are capable, if urged far, or of a drastic kind, of doing much harm. The violence of the inflammation should be subdued by bleeding, before the more active cathartics are employed: and, indeed, if that object is attained, evacuation will in general readily, if not spontaneously, follow. So that there is in reality less need of active purgatives in these cases, than is commonly supposed. They are objectionable in another respect, by their tendency to excite vomiting, one of the most distressing symptoms of *enteritis*. This objection does not of course apply to the use of purgatives in the way of injection, a practice that cannot be too much commended.

It has been a general observation among physicians, that purgatives are less efficacious in thoracic inflammation, than in others. In *diarrhœa*, or inflammation of the mucous surface of the intestines, the exhibition of a mild cathartic, such as rhubarb, is generally proper at the commencement of the disease, and in most cases suffices for the cure. You must bear in mind, that the often repeated use of active purgatives, may excite inflammation in the canal, and in this way prove injurious. It is especially necessary to be aware of this in infants, and in patients labouring under fever, or other brain-affections, who may be incapable of describing their sensations.

The *skin* is a part which, by its high state of sensibility, as well as its irritability and great vascularity, is well fitted to be a medium of impression to the rest of the system. As an organ of sense, its affections readily and powerfully influence the brain, and through this, the rest of the system. The skin may be acted upon in various ways, in order to produce *counter-irritation*. *Heat*, *cold*, and a variety of irritating applications, may be employed for the purpose, some of them with the effect of inducing actual inflammation, which is then to be considered as the remedial agent.

The *hot-bath* is often serviceable in internal inflammations, especially of an acute kind. The practice, however, requires limitation. It is not adapted to the most active form of inflammation in strong subjects, at least till the violence of action has been somewhat subdued by bloodletting or other means. The hot-bath is not proper, where the breathing is much oppressed. I have seen it induce

an alarming sense of suffocation in such cases, by increasing the general circulation at a time, when the lungs are not in a condition to transmit the blood as fast as it is sent to them by the right side of the heart. The hot-bath is also objectionable where the vascular action of the brain is in a state of great excitement. The *semi-cupium*, *pediluvium*, and *fomentations*, are all to be considered as partial applications of the *hot-bath*, and admit of the same general observations being made with regard to them.

The sudden and intense application of *cold* to the skin, as by the *cold bath*, or *cold affusion*, produces a great and universal effect on the system, as is evident by an examination of the different functions. It is an agent therefore well calculated to influence diseased action by *counter-irritation*. It has not, however, been employed to any great extent, from a dread of its use. We are so accustomed to attribute inflammation to *cold*, as its cause, that it is difficult at first to consider it in the light of a remedy. We have, however, sufficient proofs of its power to check the course of ordinary fever in many instances: and it has been occasionally employed in *enteritis*; not so much, however, with the intention of directly relieving the inflammation as to overcome the constipation generally present in these cases. But we are in want of facts upon this subject.

Stimulating the skin in various ways, as by friction, irritating applications, and exciting inflammation artificially, by *cantharides* and the like, comes under the head of *counter-irritation*. These are to be reckoned rather among the secondary or auxiliary means of cure, than as principals, though they are sometimes sufficient for the removal of slight and chronic inflammations. If, as there is reason to believe, it is the inflammation excited by blistering, and not any discharge occasioned by it, that is the source of the benefit derived, one sees no ground for the preference so generally given to *cantharides* for the purpose; for inflammation of the skin may be much more quickly produced by the mustard-poultice, and also by ammonia in a liquid form, than by the application of *blisters*; which, by the general irritation they often occasion, amounting sometimes to delirium, and still more by the inflammation they are so apt to excite in the urinary passages, are liable to great objection, and often wholly inadmissible. What particular preference is due to the *erysipelatous* inflammation excited by *blistering*, in comparison with the *pustular* inflammation produced by *tartarised antimony*, is far from being satisfactorily ascertained. The *counter-irritation* produced by *issues* and *setons*, is adapted to the *chronic*, rather than the *acute* forms of inflammation.

I may observe respecting *blisters*, that they are not well adapted to the early stage of violent inflammation, while the general vascular action is in great excess. In such cases, they tend rather to aggravate than to mitigate the disease, as well as to disturb in a high degree the general system.

SELECTIONS

FROM

LECTURES DELIVERED

IN THE

Theatre of the Royal College of Surgeons in Ireland.

BY MR. COLLES.

On Tetanus.

Gentlemen,

ANOTHER consequence of wounds, is the disease commonly called lock-jaw, we shall hereafter examine, whether it ought to be considered a spasmodic affection or not. It supervenes to every variety of wound; I have seen it occur when the cuticle under the eye was merely raised by the lash of a whip; I have also seen it follow amputation, and succeed to a contusion of the leg, over which the wheel of a car had passed. Lacerations, however, and wounds of tendinous parts, are more likely to produce it than any other species of injury. It is, indeed, impossible to say, in what case it will not occur, and if it should come on after an operation, we should, in justice to each other, look on it as an unfortunate accident which cannot be guarded against. Every period of life is equally susceptible of this disease; but there are three periods after the receipt of a wound, when it usually appears. The first is when the symptoms set in immediately after the infliction of the injury, and the patient is destroyed in twenty-four hours. If, after

twenty years' practice you meet a case of this description, it will be as much as you may expect. The second, is when it appears in the interval between the commencement of suppuration and the process of healing being completed; and the third, when it occurs, as some authors have stated, after the wounded parts are entirely cicatrized. I have known instances even of this kind to have taken place. Tetanus has been divided into two species:—the idiopathic, when it comes on without any cause that we are able to discover; and the symptomatic, when produced by wounds. Nosologists who have written upon the subject, call that form of the disease in which the jaws alone are affected, trismus; and the other, tetanus, when the whole system is engaged. The terms, emprosthotonos, and opisthotonos have been also employed to describe two states or symptoms of this disease: the first is applied when, by the action of the muscles, the body is drawn forward; the second, when drawn backward. Now with respect to the first of these terms, I never saw a case of tetanus to which it was applicable, except that of an old man who, from some cause or other, preferred sitting up in his bed, but a spasm never threw him more forward than his usual position. The disease generally commences with a soreness of the throat, and we are told by some, that if, at this time, we examine the patient's legs during sleep, they will be found very much extended. A surgeon conversant with the disease will be able to detect it at a very early period of its progress, from the peculiar cast of countenance which accompanies it, and may be the first to call the patient's attention to his state, before he is aware of it himself. The expression of countenance in this disease is very peculiar, the forehead is wrinkled, the nostrils more or less dilated, and the angles of the mouth somewhat depressed. When we come to examine the fauces, we find nothing wrong there, nor do the muscles of the neck at this time perhaps feel hard to the touch, but in some time after, if you apply your fingers to them, they will be found tense and rigid. At this stage of the disease, the patient feels no serious inconvenience, but if asked to drink, though he may be desirous to comply, he is prevented by convulsions. Shortly after, the rigidity extends from the neck to the muscles of the trunk and abdomen, and ultimately seizes on the upper and lower extremities. It is a curious fact, that the fingers are the last members which are deprived of motion in this disease. During its whole course there is not the slightest relaxation of the muscles; they are in one continued state of spasm until the patient dies, or has a remission of his symptoms altogether. If he attempts only to speak or drink; he is instantly seized with a paroxysm, and in the later stages of the disease these spasmodic fits will come on without any effort being made to produce them. From being pale, the patient's countenance becomes turgid, and of a livid hue; his breathing is so disturbed, that you would really think, that he would every moment expire of suffocation; and in the more advanced stages of the complaint, such is the force of the muscular contractions, that his heels are brought into contact with his head, and he is flung sometimes actually out of bed, on the floor. If you feel his pulse in one of these paroxysms, it will be found hard and rapid; his face is bathed in perspiration; and his tongue, from protruding between the teeth, is often severely injured by the constriction of the jaws.

During the remission, the breathing remains hurried and irregular, but the pulse is not far from being natural. Well, in this state he strives to cough up a viscid saliva, which adheres to his fauces, and if you should ask him where he feels pain, he will point it out as extending from the pit of the stomach, along the diaphragm, to the spine. His appetite is generally good, and he is even desirous to eat, but dreads swallowing any thing. The bowels are usually costive; the secretion of urine is scanty, and is sometimes passed with difficulty. It is a remarkable circumstance attending this disease, that the patient never complains of his suffering, but if you question him on that head, he will tell you his pain is severe beyond endurance, yet he bears all in silence. Well, what is generally the duration of this disease? Why, taking the ordinary period to which it extends, it mostly terminates fatally in three days; but we are told in books, that if the patient survives to the seventh day, he will recover. When the progress of the disease is slow, and the symptoms moderate, he may escape, but when they come on rapidly, say in twelve hours after the soreness in the throat has been felt, the chances are, that the patient will die even before the third day.

Now we might suppose, that the characters of this disease could not be confounded with those of any other; yet there are few diseases which have been so frequently mistaken for others, as tetanus. The peculiarity of the countenance alone, indeed, ought to be sufficient

to prevent such errors, for I never saw in my life but one tetanic expression of face; it was precisely the same in all the cases which came under my observation. The forehead and eye-brows are contracted; the angles of the mouth drawn downward and backward; the teeth considerably exposed; and if you only once examine such a countenance minutely, you can never forget it. There is another symptom peculiar to this disease, and it is this, that the rigidity of the muscles never relaxes, though the disease should continue for twenty days. Another remarkable circumstance is, that each paroxysm consists of one universal spasm of the system. Still has this disease been confounded with a variety of others, and it is only by such mistakes that we can account for the number of cases which are said to have been cured by the most trifling means. Among many of this kind, I have read the case of a lady who had been cured of tetanus which continued for three weeks, by an injection of asafœtida. There is a form of hysteria bearing some resemblance to tetanus, in which the patient lies with the eyes half closed; the paroxysm will last for half an hour, or perhaps for half a day; and observe that neither the tetanic expression of countenance, nor the rigidity of the muscles is present here. Such an attack may be induced in very nervous females, by the communication of bad news, or by being suddenly excited in any other manner. I recollect being once asked by a physician to see a patient affected with tetanus, as he thought, and when we entered the lady's apartment, we found her walking about, and he regretted that we had not come in at a time when she happened to be in a spasm of the disease. No surgeon could possibly mistake such a case for tetanus, at least we can seldom get our patients to move about in the course of the disease. There are other spasmodic affections produced by wounds, and which have been confounded with tetanus, but in these cases the spasms will relax perhaps twenty times in a minute, whereas no such thing ever occurs in tetanus. In that disease there is but one continued spasm while it lasts, and when it subsides, the muscles will be found in the same rigid condition in which they were before the accession of the paroxysm. The pain extending from the pit of the stomach to the spine complained of in tetanus, is also felt in hydrophobia, and the same efforts made to cough up a viscid saliva; but there are so many symptoms to distinguish these diseases from each other, that they can hardly be confounded.

With respect to prognosis in this disease, the cases of recovery are few indeed; but some, however, will recover. When the symptoms come on slowly, and are not violent, there is a chance of recovery; but when the reverse of this takes place, a fatal termination may be expected. Well, then, should the patient live to the ninth day, would you say that he would escape? Certainly not, for I have seen a man die after the twenty-first day. I have also seen two very remarkable cases of lock-jaw, in which the patients entirely recovered from that disease, but afterwards died of an extraordinary affection of the chest. In these cases, the rigidity of the muscles had entirely disappeared, and the limbs were completely flexible. One of these cases was that of a young man whose arm had been dreadfully lacerated by the cylinders of a mill, and who had tetanus in consequence, from which he recovered, but was soon afterwards attacked by a cough, and at almost every expiration he threw up nearly a pint of fluid resembling the port wine injection used in the cure of hydrocele after it had been discharged. He continued to cough up this fluid for three days, and died. The other was that of a postman, who, in crossing a street, fell and injured his back, and got tetanus, from which he perfectly recovered, but died of the same affection as the former. I mention these two cases, because I am not aware that such a termination of tetanus has been recorded by any other surgeon. Well, then, do not pronounce your patient out of danger, until you see him walking about for some time after all the symptoms have disappeared.

I shall next consider the treatment of tetanus; but before doing so, I must call your attention to this fact, that Dr. Rush, who has written a great deal on the subject, has certainly cured more patients in this disease, according to his own account, than we can do at present, and that he obviously confounds other diseases with tetanus. He relates one case, for instance, in which the patient could be heard roaring six hundred yards, while affected with lock-jaw. Now I never heard in my life a single patient roar in tetanus; and, indeed, this circumstance alone would be sufficient to prove it not to be that disease at all. He gives another case of a man who was cured by drinking five bottles of madeira in the day. This is, indeed, very strange, for we cannot get our patients here to drink so many ounces in the same length of time. He also speaks of a case where a cure was effected by three ounces of bark;

but such cases, I need scarcely add, must have been different from tetanus. He tells us, too, that the appearance of the wound changes when the symptoms come on; that there is less of inflammation and suppuration than ought naturally to be present. I frequently examined wounds which were followed by tetanus, and never did I find, except in one instance, that the inflammation or suppuration was below the natural standard. This was in the case of a girl who had necrosis of the tibia, and in getting up behind a carriage, one of the spikes ran into her foot. In this instance, in which the patient died of lock-jaw, there was certainly less of inflammation and of suppuration than you might expect in such an injury. Now, according to Dr Rush, the local treatment of the wound is of the first importance, and he desires us to stimulate the part as soon and as violently as we can. Well, I have tried a variety of stimulants, such as blue stone, lunar caustic, corrosive sublimate, &c.; and among the rest, one of my own invention, muriate of antimony, saturated with corrosive sublimate, but without any other effect than adding to the tortures of the patient. I am now convinced, that there is connection between the state of the wound and the constitutional disease.

Another consideration is, whether we should amputate the limb, or whether this operation will save the life of the patient? I recollect having seen Mr. Obrey amputate a man's thumb, in Stevens' Hospital, which from a compound dislocation of the joint had produced tetanus; but he might just as well have left it on, for its removal had not the slightest effect on the disease. Yet Barron Larrey speaks of amputation in strong terms of praise, and recommends its performance in all cases where it is practicable; but we have lately put it to the test in Stevens' hospital, in the case of a man whose arm had been dreadfully lacerated, and he died in the ordinary period, just as if we had done nothing. We need not, therefore, look to the treatment of the wound to stop the progress of the constitutional disease. Well what are the internal remedies to which we are to resort in this disease? A great deal has been said in favour of opium, but with what justice I cannot pretend to say. I once thought I was curing a patient with this medicine, when in fact he was taking so small a quantity of it that it could scarcely have produced any effect; an apothecary's boy in the hospital, having by mistake made the opium pills, which I had ordered in large doses, no larger than pins' heads, yet under this management, which was not discovered for some time, the man recovered. In what quantity then should you give the opium? You should give it in large doses, say to begin with forty or fifty drops of laudanum, and to increase the dose every third or fourth hour according to the severity of the symptoms. The tincture is preferable to the solid opium, as it affects the system much sooner, and is more readily given. Now what is to limit the use of this medicine? In many cases the largest doses will scarcely produce its specific effects, but when the eyes become suffused and the face appears turgid, you should diminish the dose, but still keep the patient under its influence. I have heard some surgeons say that they lost patients by constipation produced by its use. When it has a tendency to produce this effect, the best remedy is by glisters—much better than purgatives given by the mouth. I recollect when Dr. Hamilton's book came out that it was expected that every disease would be cured by purgatives, and they were tried in tetanus, but I always found that the patients died sooner under that plan of treatment than they otherwise would if it had not been employed at all. Well can we do any more? I believe we should always administer mercury, which should be given in large doses, and the ointment rubbed in along the course of the spinal marrow, so as to produce salivation as soon as possible, for from what we know of this disease there is no time to be lost. We should, however, be on our guard against giving mercury to excess, though I have never seen its use followed in this disease, by that peculiar affection of the heart and palpitation observed by other practitioners, and which not unfrequently occur in the venereal. It is generally very difficult to salivate patients in this disease, and we are told that if we can do so that they will recover, but I have seen them die while profusely salivated. In the idiopathic form of the disease, mercury will be found a much more valuable remedy than in the symptomatic. We are next informed that the warm bath is a serviceable remedy in tetanus, but I look upon it as quite useless. No doubt when you place a patient for the first time in a warm bath, he feels very comfortable, and longs for a second, which however, does not produce the relief from suffering anticipated, so that he rarely wishes for a third, and will seldom be prevailed on to try it a fourth time.

Now the very opposite to this has been recommended by Dr. Wright, and he really speaks of the cold bath as an infallible remedy; but if you examine his

cases minutely you will find, that they are not tetanic affections, for he represents the spasms as lasting ten minutes. I saw two cases in which the cold bath was employed, and really the difficulty of breathing, and other distressing symptoms which it produced were frightful beyond description. For my own part, I am convinced that no benefit can be derived from its use, and though Dr. Wright speaks of the disease as it occurs in a warm climate, I am greatly inclined to doubt the accuracy of his statements; for Dr. Chalmers, a man who certainly wrote from observation, describes the disease in South Carolina, precisely as it appears in this country. Musk, and other antispasmodics have also been recommended, but they hold out no prospect of success. Bark too has been spoken of, but I place no reliance whatever on its efficacy in this disease. Another plan of treatment, founded on the stimulating system of Dr. Rush has been adopted, and wine, spirits, &c. have been ordered to be given freely, but this plan does not succeed here. I have heard, indeed, of a case cured by the first dose of whiskey, but the case was clearly not tetanus, for no one ever saw that disease suddenly removed by any means. If the patient recovers, he does so gradually, and this very circumstance is quite characteristic of the disease. When you read of such cases then, you may consider them as entirely different from tetanus. When you come to dissect the body of a patient who has died of this disease, you are unable to detect any morbid appearances, which would in any manner account for the symptoms witnessed during life. You may perhaps find the extensors, and the recti muscles of the abdomen torn across and an effusion of blood in some parts of the body, but these are evidently the consequences not the causes of the disease. There are some times when you will not find a single case of tetanus in Dublin perhaps for a year, whilst at other periods the hospitals are crowded with them, and the pupils will be telling each other of the number of cases of this kind in their respective establishments.

I remember one summer when I was sick of looking at this disease, so prevalent was it at the time. Moist warm weather predisposes, in my opinion, to this disease. We should endeavour to prevent attacks by the application of some stimulant to the injured parts. For this purpose I think the spirit of turpentine by far the best agent that can be employed, as it possesses some peculiar property of producing a healthy inflammation and suppuration in wounds. The next class of medicines which I have to mention, and on which, from my own personal observation I am inclined to place the greatest reliance, are sudorifics. I recollect two instances in which their use was followed by success, as far as we are able to judge of the efficacy of medicine. A man received a slight bruise, which was succeeded by lock-jaw; I immediately threw him into a perspiration, which I kept up for a few days, and he was much relieved; but on discontinuing the medicine for a few days, the symptoms returned. I had recourse to the same treatment again, and the man ultimately recovered. The other case, was that of a man who had received a severe injury of the loins, which was followed by incipient lock-jaw; I treated him in the same manner as the other, and he perfectly recovered of the disease. Mr. O'Brien, of this city, has found tobacco a successful remedy, but I have tried it without obtaining similar results; some persons, however, can do more with a particular remedy than others can, and I believe this substance deserves further trial. The idiopathic form of the disease is much more prevalent in warm than in temperate climates, and differs from that which I have just described, by being ushered in with a quick pulse and fever, and by being more mild and slow in its progress. It is by no means so formidable a disease as traumatic tetanus, and if judiciously treated seldom terminates fatally. Continued perspiration, the warm bath, and moderate use of opium will be highly beneficial; but indeed we should not confine ourselves to any particular class of medicines, but employ such as we conceive the nature of each case may require.

(Mr. Colles next adverted to that form of the disease called "trismus nascentium," which he principally attributes to a bad description of ulceration, taking place in the separation of the umbilical chord. It rarely occurs in private practice, and might probably be prevented by dressing the wound with turpentine, and by plunging the infant in cold water. Much he conceives will depend upon cleanliness, good air, and attention to the dressings of the infant, an opinion in which he has been confirmed by the report of a lady who had seen the disease checked by these precautions, in a place where it had been very prevalent.)

When the patient then is about to recover, you are not to expect that the severity of the symptoms will suddenly subside; for though the paroxysms will become less frequent, their violence may

not be diminished. In cases that are to end fatally, the patient may die during the paroxysm; but in most cases he becomes languid and heavy, and expires in the intervals between the spasms. It is a curious fact, that after one of these spasms he will tell you that he feels better, that his jaws admit of greater motion, so that an inexperienced person might suppose that the patient was about to recover; but immediately these fallacious symptoms often prove the certain precursors of death. I forgot to mention that you should keep a piece of wood, or cork will answer the purpose still better, between the teeth from the commencement, that medicine and food may be introduced when necessary.

It has been said that the body of one who dies of this disease runs sooner into a state of putrefaction, but I have not found this to be the case, though I have had some of them in the dissecting room. An examination of the body throws no light whatever upon the pathology of the disease. You may find effusion of blood in the brain, and other morbid appearances in other parts, but all these are common in other spasmodic affections which have terminated fatally. As to the nature of the disease, it possesses some of the characters of spasm; but yet it is the only disease in which the muscular rigidity is constantly present. This character has been overlooked in classing it with other spasmodic affections; for it strikes me that in classing any disease under a particular head, we should chiefly look to its permanent symptoms. In the progress of the disease the muscles are affected in regular succession, but you are not to suppose that all the muscles must first become engaged before the case terminates fatally, for the patient will sometimes be carried off a day before the disease will reach the extremities.

REVIEW.

Small-pox and Cow-pox; comprehending a concise history of those diseases, and a comparison between Inoculation for Small-pox, and Vaccination, &c. &c.—By John Jennings Cribb, Member of the Royal College of Surgeons. 8vo. pp. 80. Deighton, Cambridge; Longman & Co. and Underwoods, London. 1825.

As the histories of small-pox and vaccination, are either known to every one, or contained in cyclopœdias and dictionaries, we pass over that part of the work which is devoted to those subjects, and proceed to the inquiry into the prevalence of small-pox amongst the inhabitants of Cambridge, during the twenty-five years which preceded the summer of 1824. In the autumn of 1823 it appeared at Cambridge, and ravaged the town and neighbourhood until the following April. There, as in other places under a similar visitation, many exaggerated reports of the inefficacy of vaccination were circulated, which led the author to investigate the subject, and to the results which he has stated in the little work now under analysis. He chiefly endeavoured to ascertain in what manner and to what degree the practice of vaccination had influenced the irruption of small-pox; or to what extent, under what circumstances, and with what degree of severity, small-pox had occurred in persons previously vaccinated. His inquiries were therefore limited to the twenty-five years which had elapsed since the promulgation of Dr. Jenner's discovery, and the results which he obtained are exhibited in the following table:

TABLE,

Shewing the number of Cases of Small-pox and Cow-pox in Camerage, for Twenty-five Years preceding the Summer of 1824.

PARISHES.	Population Census of 1821.	Natural Small-pox.	Inoculated Small-pox.	Died of Small-pox.	Vaccinated.	Small-pox after Vaccination.	Neither Small-pox nor Vaccinated.	Epidemic of 1823—4. Natural Small-pox.	Inoculated Small-pox.	Died of Small-pox.
St. Giles's.....	1,635	364	143	34	371	15	83	110	32	20
St. Peter's	481	97	46	9	86	7	24	45	9	4
St. Clement's ..	772	154	51	9	185	10	41	34	1	4
St. Sepulchre's..	642	93	67	8	180	11	27	19	3	3
All Saints'	938	118	97	11	301	15	15	23	0	5
St. Michael's ..	379	57	45	8	115	17	10	3	3	0
Trinity	1,793	253	159	24	511	46	80	72	13	11
St. Mary's (Grt.)	880	70	73	3	299	7	26	9	0	1
St. Edward's ..	810	40	40	2	210	11	13	1	0	0
St. Bene't's .. .	967	111	88	9	251	12	18	34	2	4
St. Botolph's ..	716	81	43	13	183	12	12	14	3	2
St. Mary's (Less)	648	78	55	5	196	2	13	7	0	2
St Andrew's (Great) ..	1,267	163	109	32	318	16	51	25	1	2
St. Andrew's (Less)	2,211	528	151	38	747	43	186	188	35	26
TOTAL....	14,142	2,207	1,129	205	3,953	224	599	584	102	86

Thus it appears that of 2207 cases of casual small-pox 192, or 1 in 11½, proved fatal. That of 1129 persons who received the disease by inoculation 10, or 1 in 113, died; and of 224 in whom it appeared after supposed vaccination, 3, or 1 in 74. The author's means of canvassing the subject were, however, extremely imperfect, and the results he has arrived at, as to the whole period, far from the truth; but as they relate to the epidemic of 1823-4, they probably approach very near it.* In that

* The author, accompanied by an overseer of each of the parishes, called at every house and interrogated the inhabitants, by which it is obvious he obtained a pretty correct account of the number of persons afflicted with small-pox, &c., at the time or recently, but not of those so affected twenty years ago.

epidemic, 84 out of 584 died of casual, and 2 of 102 of inoculated small-pox, or 1 in 7 of the former, and 1 in 51 of the latter; while of 1613 who had casual small-pox previous to 1823-4, only 108, or 1 in 15, died, and of 1129 who received the disease by inoculation, 8, or only 1 in 141. But, *a priori*, so great a difference in the mortality of the disease cannot be admitted, and nothing, *a posteriori*, is adduced to support it.

"It must be considered," says the author, "that the returns here made are not those of a regular and current register, in which the events would be noted down at the time and in the order of their occurrence; but it was taken at the termination of a given period, and that a period of no less than twenty-five years. The accounts it contains must consequently depend on the testimony of the individuals of whom the inquiry was made, and upon their memory and veracity. Reports resting on such a foundation must almost necessarily be short of the truth; in some instances the memory may be fallacious; although the death of a member of a family from small-pox is certainly an event of a memorable nature. There is also reason to doubt the veracity of some persons on such an occasion; for since the introduction of inoculation, and more especially of vaccination, the death of a child from small-pox is considered to a certain degree disreputable, inasmuch as it implies neglect or prejudice on the part of the parents; and in many instances a reluctance to make the communication was obvious.

The circumstance, however, which would chiefly operate in rendering the report defective, is the *dispersion of families* which must have taken place in the course of so long a period. In every instance where death from small-pox had taken place in a family, out of several other members probably who survived the disease, and that family had become subsequently dispersed, the case of death would not be recorded, although the cases of the survivors would; they being still living to give an account of themselves. The report then, as respects the number of deaths, is much less likely to be correct than as respects the living; and, indeed, with regard to the latter, it may be depended upon with a considerable degree of confidence, as the number of inmates in each house was easily ascertained and each individual was to be accounted for.

From these considerations, it appears extremely probable that the report is deficient in the number of deaths which occurred in former years. There would be but little danger of the same incorrectness in the report of those deaths which took place recently; for it is impossible that any could have been forgotten; misrepresentation would have been easily detected; and the dispersion of families in so short a space of time must have been very inconsiderable."

The average number of deaths among those who partook of the epidemic of 1823-4, was as we have seen 1 in 7, which accords pretty well with what has been generally observed of the small-pox under similar circumstances. There being no reason, therefore, to suppose that the late epidemic at Cambridge was more malignant or fatal than those which had preceded it, we may infer that 315, or 1 in 7 died of small-pox within the last 25 years, instead of 192, the number brought out by the author's inquiry. His results, as far as they relate to the late epidemic are, as we have already observed, worthy our attention, but the remainder of the table must be considered a vague and fallacious document.

To adduce much proof of the efficacy of vaccination may now be deemed a labour of supererogation, but the following particulars, unsatisfactory as they may be, are not altogether uninteresting.

"If," says the author, "vaccination be a preventive of small-pox, we should of course expect to find, that in proportion to the extent of its diffusion, small-pox would be diminished; and to ascertain whether this be really the case among the subjects of this inquiry, the several parishes have been divided, in the following table, into two divisions; the first consisting of those parishes which contain the largest proportion of vaccinated persons; and the second, of those containing the smallest.

TABLE

TABLE showing the Number of Persons in 100, who had Natural Small-pox, Inoculated Small-pox, and Cow-pox in each Parish, under Twenty five years of Age.

FIRST DIVISION;
Comprising seven Parishes, which contain the largest proportion of Vaccinated Persons.

PARISHES.	Number Vaccinated in 100.	Number who had Natural Small-pox in 100.	Number who had Small-pox in 100 in 1823-4.	Number of Inoculated Small-pox in 100.
St. Edward's	69	13	0½	13
St. Mary's (Great)..	64	15	2	15½
All Saints'.....	58	23	4	15½
St. Mary's (Less) ..	57	23	2	16
St. Botolph's	57	25	4	13
St. Bene't's	53	23	7	19
Trinity	52	27	7	14
Seven Parishes..	7)410	7)149	7)26½	7)106
Average Number	58½	21⅜	3⅞	15⅛

SECOND DIVISION;
Comprising seven Parishes which contain the smallest proportion of Vaccinated Persons.

PARISHES.	Number Vaccinated in 100.	Number who had Natural Small-pox in 100.	Number who had Small-pox in 100 in 1823-4.	Number of Inoculated Small-pox in 100.
St. Michael's.....	50	5	1½	20
St. Andrew's (Great)	49	25	4	17
St. Sepulchre's	49	25	5	18
St. Andrew's (Less)	46	32	11	9
St. Clement's.....	43	35	8	16
St. Giles's	38	37	11	15
St. Peter's	34	38	17	18
Seven Parishes..	7)309	7)217	7)57½	7)113
Average Number	44⅛	31	8⅛	16⅛

In the first division, in which it will be seen that the proportion of vaccinated persons amounts to 56 in 100, that of the subjects of natural small-pox is only 21 in 100; and in 1823-4, four in 100. Whereas in the second division, in which the mean number of vaccinated cases is only 44 in 100, that of small-pox amounts to 31 in 100; and in 1823 4, to 8 in 100; evincing, in a striking manner, the influence of vaccination in the prevention of small-pox. That this difference is attributable to vaccination, and not to inoculation with small-pox, is shown by the last column, by which it appears, that the number of the inoculated in each division is nearly equal, the first having 15 in 100, and the second 16 in 100. The natural and obvious inference from this calculation is, that in proportion to the prevalence of vaccination has been the prevention of small-pox."

Of the 224 cases which are said to have occurred after vaccination, the author has obtained the following particulars, either from the individuals concerned, or from their friends, and classed them under four general divisions, as follow:

Class.	
1. Slight—The patient not confined to bed, and in most cases, not so ill as to be induced to apply for medical assistance..	163
2. Severe—Patient confined more or less to bed, either the fever or the eruption, or both, severe, but no danger apprehended ..	33
3. Dangerous—Producing blindness, leaving pits on the skin, and for a time recovery doubtful ..	9
4. Died	3
	208

The symptoms of the other sixteen cases could not be ascertained; and the author could obtain no satisfactory evidence that the three persons in whom the disease proved fatal, had been perfectly vaccinated. Some having conjectured that the efficacy of the vaccine virus may have been impaired by time, and the numbers through whom it has passed, the author has endeavoured to ascertain the year in which vaccination was performed in those who subsequently took small-pox; since, if the hypothesis be true, the number of failures would have diminished the more nearly we approach to its introduction. For this purpose he has constructed a table, showing the year in which vaccination was performed on those who afterwards took the small-pox, from which we learn, that out of 126 cases, 18 were vaccinated previously to 1806; 37 more (or 55) previous to 1812; 41 more (or 99) before 1818; and 27 within the last six or seven years. When it is considered that vaccination has been so much extended, and that the chances of failure must have been proportionably increased, there is strong reason for believing, that those who were vaccinated in the early years of the practice, have taken small-pox in the same proportion with those on whom the operation has been more recently performed. The author has another table, which exhibits the year in which small-pox occurred after vaccination, and the number of cases in each year, from which it appears, that the former has supervened after the latter more frequently of late than in former years. Dividing the time which has elapsed since 1800 into periods of six years, the number in the first, or till 1806, is 1; for the second, or until 1812, 8; for the third, to 1818, 43; (33 of which were in the year 1818;) and the fourth, 92, 84 of which occurred during the epidemic of 1823-4; whence it appears, that of 744 cases of small-pox after vaccination, 125, or nine-tenths, have happened within the last seven years. From another table the author endeavours to show that the notion which some have entertained, that the protecting influence of cow-pox endures for a limited period, is a mere prejudice; for, of 164 cases, 97, or considerably more than half, took place within six years from the time of vaccination, and 34 more, or 141 within twelve years.

But here it must be objected, that the small-pox is very eccentric in its visits and ravages, and that consequently the time at which persons partially or wholly unprotected may have the disease must at least be equally uncertain; and that the tables which have furnished these data, are, as to remote periods, no guide whatever; as may be seen by comparing Nos. 2 and 7, from the former of which it appears, that 224 had small-pox after vaccination since the year 1800, while in the latter, 144 only are enumerated; and we cannot find that this discrepancy has been cleared up. From these preceding details, however, the author has arrived at the following conclusions:—

"1. It is very probable, that more than 300 individuals have died with natural small-pox in Cambridge in the course of 25 years preceding the summer of 1824.

2. Ten have died in the same period of small-pox from inoculation.

3. Three have died of small-pox subsequent to supposed vaccination.

4. From the joint influence of vaccination and small-pox inoculation, it is very probable that 713 deaths from natural small-pox have been prevented.

5. If all who have been affected within the given period with either of these diseases, (viz. natural small-pox, inoculated small-pox, or cow-pox,) had been inoculated with the small-pox, 64 only would have died.

6. Had all undergone vaccination, five or six only would have died of small-pox.

7. Where one person has died of small-pox after vaccination, 11 or 12 have died of inoculated small-pox.

8. In the several parishes of Cambridge, in proportion to the diffusion of vaccination, has been the prevention of small-pox.

9. Two hundred and twenty-four cases of small-pox have occurred after supposed vaccination.

10. In these cases the disease was slight in 163; more severe, but not dangerous, in 33; dangerous in 9; and fatal in 3.

11. In two of the three fatal cases, the history of the vaccine disease is imperfect; in the third, the vaccine vesicle was injured, and its natural progress interrupted.

12. The supervention of small-pox in persons previously vaccinated, has been incomparably more frequent of late than in former years.

13. Lapse of time does not impair the protecting influence of cow-pox, in the persons of those who have once undergone the disease.

14. The vaccine virus has lost none of its efficacy from the time which has transpired, and the number of individuals through whom it has passed, since it was first taken from its original source."

The author remarks, that the means employed to extend the practice of vaccination in the town of Cambridge have been very inadequate, and that, when the small-pox made its appearance in 1823-4, nearly 600 persons took the infection, besides 102 to whom it was communicated by inoculation. After the epidemic had terminated its ravages, he still found 600 unvaccinated persons who had escaped the contagion, and who of course are open to receive it on its next visit. The means of extending vaccination which he proposes, consist,

"1. In the provision of means for the effectual performance and universal extension of vaccination.

2. In securing a constant supply of vaccine virus.

3. In exciting and perpetuating the attention of the public to the subject.

4. In affording better opportunities than have heretofore existed, for observing the phenomena of the cow-pox, and the diseases connected with it."

We think the inhabitants of Cambridge had better begin by discouraging those practitioners who so materially extended, if they did not introduce the late epidemic by inoculating within a short period no less than 102 individuals; for while such practices are tolerated, it is idle to expect that the full benefits of Jenner's discovery can be realized.

COLLECTANEA.

Case of Abdominal Dropsy, in which an attempt was made to cure the Disease by exciting Peritoneal Inflammation. By H. R. Oswald, Esq. Surgeon.

[London Medical and Physical Journal—April.]

In October, 1817, I was called to see a Mr. W——, a prisoner for debt in Castle Rushen, who laboured under dropsy. He was between fifty and sixty years of age, one who is generally described as a broken down constitution, and a free liver, who had undergone a great deal of fatigue and various hardships in his time; and even his countenance presented a bloated and sallow aspect. He was unable to lie down, from orthopnea. General anasarca had supervened to ascites, so that, from the toe to the axilla and epigastrium, the integuments pitted deeply on pressure; and, in the legs and scrotum, the swelling was so great as to render the skin tense and shining. The abdomen was as tense as a drum, but by no means protuberant in proportion. His spirits were good; and, though his appetite admitted of little nourishment, he had supported himself, he said, by a plentiful allowance of liquor, which he could not do without, and which he could not be prevailed on to give up. Under these circumstances, tapping appeared to me to afford the best chance of relief; and it was accordingly performed, by puncturing midway between the ilium and umbilicus. The quantity of serum discharged did not amount to two gallons. The operation relieved the tension of the abdomen, of course, but the general anasarca remained in *statu quo*. As I resided ten miles distant from this patient, I left him to the care of Mr. Jones, resident practitioner of Castletown, and did not see him again for nearly a week, when I found that the wound made in the abdominal parietes had not only not closed, but looked angry and callous, and discharged water in large quantities. When I cut through the œdematous integuments, they discharged more water than blood, which caused me to suspect the puncture would be slow in healing; a circumstance not to be wondered at, considering the man's mode of living. From the continual oozing of water from it, the belly became more and more flaccid, and the general dropsy had undergone a corresponding improvement; from which circumstances, and the deep appearance of the wound, there was much reason to conclude the peritoneum remained divided; but the patient complained only of slight pain or tenderness on pressure. However, suspecting that this accident might prove the cause of serious inflammation of the peritoneum, I refrained from probing it, and decided upon letting the case take its course. I therefore confined the practice to saline diuretics and purgatives, and prescribed venesection, if the pain in the abdomen on pressure should increase. He drank at this time a pint of gin daily, and denied the possibility of living without it; and, under the circumstances, I did not consider it prudent to contend with him about it. I know this concession will expose me to the censure of some, but the result proved that it was not a fatal error, however much opposed to the best established theories and opinions. The wound continued open for upwards of a month, and closed gradually. There was no return of the ascites. The anasarca so far abated, that it was reduced to his feet and ancles; and in the autumn of 1818, the year following, I met my patient in the streets of Douglas, a tall, broken-down looking man, but as well, if not better, than he had been for some years previous to his attack of dropsy. He soon after left this island, since which I have lost sight of him.

Independent of the relief to the system arising from the evacuation of the water, I had considered this cure as partly the consequence of a low degree of peritoneal inflammation, induced by the stimulus of air admitted through the aperture, or by an extension of the inflammation from the wound, under the circumstances above described. I had therefore proposed to myself the feasibility of imitating this sort of cure, in the first case that occured favourable for such an attempt.

On the 25th of November, 1823, Betty Craine, æt. 24, was tapped for a dropsy, arising, as it was supposed, from exposure to cold, when thirty-five quarts and a half of a clear limpid serum were evacuated. Venesection, mercurial liniments to the abdomen, diuretics, and purgatives, were afterwards promptly employed, somewhat to the benefit of the patient's health. The fluid, however, again accumulated, and paracentesis was again performed in the following month of February, on which occasion twenty quarts of a dense and albuminous fluid were obtained. Was this change from a limpid serum to a dense albuminous fluid in so short a period, the consequence of the action of the mercury? It certainly happens in ill-conditioned ulcers and membranes, that a change from an ichorous to

a healthy discharge is occasioned by the action of this mineral on the system. Or was this difference in the fluids owing to their being the contents of two different hydatids, or cysts, enlarged rapidly?

After this second operation, repeated venesection, sudorifics, and the exhibition of the compound powder of jalap, as an aperient diuretic, were practised, in conjunction with a course of steel, and occasional blistering to the affected region. These remedies all agreed pretty well with the patient; but the operation became again necessary in April, when nineteen or twenty quarts of a still more viscid fluid were discharged. But the patient's health was now very considerably improved; for, within two days after the tapping, she was enabled to walk home (three miles and a half) without difficulty.

Excepting the purgatives, all the other remedies were now discontinued, and I put the patient upon a course of diluted arsenical frictions into the abdomen, with the view of bracing and changing the action of the system of diseased vessels.

I did not see my patient again, however, till July 24th, 1823, eight months after the first, and nearly three after the third operation, when she again presented herself, labouring under a return of the disease. Her general health was very much improved, and she had gained so much flesh and muscular vigour, that, had it not been for the large size of the tumour, and the dyspnœa occasioned by it, she said she would have felt quite well. Her appetite was good; but she complained of being unable to satisfy it, on account of the great oppression of respiration occasioned by taking even a small quantity of food. Tapping was immediately performed, and twenty-two quarts of a colourless albuminous fluid discharged. The integuments and parietes of the belly now presented little induration or thickening, but were, on the contrary, flaccid and soft.

On this occasion, I reasoned in the following manner. In consequence of the failure of all the remedies tried in the cure of this case, and under the conviction that the internal surface of the abdominal sac, instead of a serous, had passed into a membrane secreting a very different fluid, in this manner rendering the disease in some degree a local one.

Was I warranted in attempting to produce a change in the vessels of this secreting surface, by means of a practice suggested by the case above related?—in trying so hazardous a measure as that of inducing peritoneal inflammation, to cure ascites or dropsy of the ovarium? The degree of success that attends the practice warrants me in premising that I was, and, although the case ultimately terminated fatally, that such practice was by no means the cause of death. At any rate, I consider myself bound to make the case known. I considered the probability of success increased by the improved state of the general health of my patient. Had I attempted it during the weak state my patient was in when I first saw her, and whilst the parietes of the belly were callous and diseased, my expectations would have been disappointed.

Impressed with these considerations, I determined in the present instance to keep the wound open, and for this purpose the canula was left in the wound for the first night after the operation, secured by means of adhesive plaster, but in such a manner as to admit a free passage through it.

July 25th.—Passed a very tolerable night, and has no complaint to make this morning. The canula slipped from the wound about six o'clock; it caused a little local irritation, but little or no general pain or uneasiness. A good deal of water has oozed out during the night. A tent of prepared sponge was introduced into the wound, secured by a ligature fixed by adhesive plaster. Bowels to be kept open.

26th.—Patient has got up, and is walking about the room. Tent still continues in the wound, without occasioning pain or tenderness. A good deal more water has oozed out into the bed. Urine not complained of as deficient; skin soft, pulse moderate; no other remarkable symptom.

Two days after this, the tent slipped out of the wound, and it had closed before I had an opportunity of re-introducing it. Having consigned the case to the care of Mr. Watts, she had gone home without my knowledge, most probably from some hyperbolical representation of the danger of the practice.

After this period, the treatment of the case was confined to nourishing regimen and exercise, in so far as that could be attained in her circumstances; and a frequent use of the pulvis jalapæ compositus.

September 25, 1823.—Has occasionally called for a supply of her medicine. To-day (two months after the last operation) she reports herself quite well. No re-accumulation of the water has taken place; health and strength continue to improve; and she has experienced a return of the menstrual discharge, which has been absent for nearly three years. Walks into Douglas and back again, a

distance of seven miles, the same day, with ease.

In Mr. Holford Watts's notes of the case, I find the following remark:—"From the foregoing statement, the tent has fully answered our expectations, in altering the nature of the secretions of the cavity, and producing a radical cure of the disease. The tent acted so insensibly in producing this alteration, that we almost despaired of success; but the event has proved the utility of the method of cure practised." Without expressing quite so much confidence in the *modus operandi* in the cure of this case, I shall proceed to detail the subsequent history of it.

Aug. 30th, 1824.—Reports that, till within the last three months, she continued quite well, and menstruated regularly for a period of about nine months; but the disease has lately been increasing rapidly, for which relapse she can assign no cause, excepting a partial exposure to damp. On this occasion the disease is accompanied with much more fever and irritability than at any former one. Has been confined to her bed for the last month, and is not able to sit up for any length of time, owing to the tenderness of the abdomen, and the great weight she has to support. Has taken some of the medicine she formerly found useful, but without any benefit. Pulse 100, and small; respiration very difficult, though it does not amount to orthopnœa, and is most easy in the recumbent posture. Expects no relief from any means except the operation, which I immediately proceeded with, and in the usual manner evacuated twenty seven quarts of a very dark-coloured liquid, of great weight, from the quantity of mucus with which it was loaded. It was nearly as thick as the white of an egg; the colour reddish, and partaking of that of the grounds of coffee; after standing a night, it deposited a similar sediment.

Towards the close of the tapping, I found it was impossible to evacuate the whole of the fluid from the abdominal cavity, on account of a large tumour of a solid nature, that appeared to occupy the whole of the lower part of the abdomen, in a line with the superior processes of the ossa ilii, and which seemed to obtrude itself against the mouth of the cannula. Pulse 120 after the operation, which she bore remarkably well.

Sept. 1st.—Passed two good nights. There is a little discharge from the puncture. Complains of nothing in particular; but the respiration is still hurried, and the emaciation and varicose state of the superficial veins of the abdomen more conspicuous than ever.

6th.—Wound not yet healed, but discharges very little. There appears to be a fresh effusion of dropsical fluid going on; for I cannot now feel distinctly the tumour in the lower part of the belly. Is able to sit up a little.

October 19th.—Abdominal tumefaction has regained its usual magnitude. Debility and emaciation greater than ever; pulse 120, and small. She is feverish and exhausted; has appetite only for a little tea and toast, and such like. Considered the case desperate, but, at her own request, tapped her again to-day, and drew off sixteen quarts of the same mucous fluid, but mixed with a flocculent matter of a purulent sort.

23d.—Febrile symptoms and dyspnœa considerably abated. The puncture, which was made through the umbilical ring, through which the water protruded, has closed. Bowels to be kept open with the pilulæ rhei co., and no other medicine to be taken.

Dec. 20th.—The dropsical swelling is apparently as large as before it was last evacuated; but she herself thinks it is not so oppressively tense. Back ulcerated, from lying on it so long; pulse 140, and so feeble as to be hardly perceptible. Respiration is surprisingly free, considering the extent of the disease, and the necessity of being always in the recumbent posture. Is anxious to have the operation performed again; but, taking all circumstances into consideration, it is manifest there is great risk of her sinking suddenly under it. The pilulæ rhei comp., to keep the bowels open, and adhesive plaster to dress the back, were therefore ordered; and a little patience recommended in a cheerful manner.

25th.—Died yesterday at five A.M. Having obtained permission, I proceeded to open the body to-day, at ten o'clock, accompanied by Mr. Watts and Mr. Anderson, surgeon (at that time on a visit here). Some gangrenous spots appeared on the most prominent parts of the abdomen; and the inferior extremities, especially the right leg, were œdematous. The fluid was, as a first step, evacuated by tapping, but the discharge of it was much impeded by the tumour in the pelvis formerly noticed: we had, therefore, to complete it by laying open the abdomen entirely, when from three to four gallons in all were collected. The whole of the internal cavity of this vast sac was lined with a dense, white, and rough-looking membrane, of a fragile and diseased structure. The abdominal muscles had almost entirely disappeared, so

that externally the membrane adhered loosely to a thin layer of blackish cellular membrane, interposed between it and the skin. It adhered also to the diaphragm, and to the liver, both of which had been forced deep under the ribs. Behind it, the intestines were found of an unusually small size, and dark leaden colour. The interior surface of the sac was rendered rough by a sort of tubercular elevation, and flakes of purulent albumen. In general, it was one-eighth of an inch in thickness, and in some places it seemed to consist of more layers than one. On tracing it into the pelvis, its internal surface became loaded with a tubercular, carcinomatous, and pale-coloured fungus, possessing a structure not unlike that of the placenta, and from half an inch to one inch and a half in thickness, especially on the right side, where the punctures had been most frequently made. This was the hard tumour felt occupying the pelvis in a line with the superior process of the ossa ilii. Tracing the sac still lower, it was discovered to be the cyst of a dropsy, originating in the right ovarium, at the fundus of the sac, or, more properly speaking, its neck. It terminated in a space about the size of the palm of the hand, which had once been occupied by the structures connected with the ovarium; and at this site it involved congeries of several groupes of cysts, like hydatids, of sizes from that of a small orange to that of a filbert-nut, which were smooth and pellucid, and contained a limpid serum. The left ovary was also diseased, and consisted of a congeries of smaller-sized cysts, cemented by a membranous and fleshy envelope, and exhibiting a beautiful specimen of incipient dropsy of the ovarium, as described by Dr. Baillie, in his Morbid Anatomy; where he views such a congeries, not as hydatids, but as cysts or capsules, which undergo enlargement successively.

The uterus was healthy, and of the usual size. There was a stricture in the rectum, a little below the symoid flexure of the colon; and above it that intestine was much loaded. The liver was half its natural size; but, excepting the diseased look caused on its surface by the adhesion of the sac, it was free from derangement of structure. The gall-bladder was quite distended with black and viscid bile, and filled with biliary concretions. Excepting a most contracted and diminutive size, the contents of the thorax presented nothing remarkable.

The foregoing statement involves four facts and questions of considerable importance in pathology. 1st. The great quantity of fluids evacuated in so short a space of time: no less than ninety-six quarts in eight months, by four operations; and fifty-nine quarts from August to December 1824, or four months, by three. 2dly. The variety in the nature, consistence, and colour of these fluids. 3dly. The possibility of curing ascites and dropsy of the ovaria, by exciting inflammation in the abdominal sac, either by the admission of air into it, or by mechanical irritation. And 4thly. The possibility of a thickening of the parietes of the abdomen by inflammation, or by an exudation of a carcinomatous sort, being mistaken for a tumour rising out of the pelvis. But, as most men will form their own opinions on these facts, I think it preferable to confine myself to simply pointing them out.

Douglas, Isle of Man,
February 1826.

In encysted or ovarian dropsy, we do not know but this practice may answer, but should be loth to adopt it when the peritoneum is the seat of the disease, although Brunner (Miscell. Nat. Curios. Dec. 2, An. 8) recommends something much bolder, no less than to inject a tincture composed of myrrh, aloes, and camphorated spirits of wine, which, he says, will be so far corrected by the water contained in the abdomen, as to occasion little or no irritation! What will Dr. Ayre say to this?

A short description of an Ophthalmia which prevailed in Gibraltar and Bombay, with an account of the effect of Sea Water in arresting its progress. By Geo. Richmond, Assistant Surgeon of the 4th Light Dragoons.—(*Ib.*)

During the year 1815, while the 2d battalion of the 11th regiment was quartered at Gibraltar, an ophthalmy broke out, and spread among the men with amazing rapidity, threatening destruction to every eye that came under its influence. The inflammation first made its appearance on the inner edges of the tarsi; thence extended over the surface of the conjunctiva lining the palpebræ. In proportion to the inflammation in this membrane, the meibomian glands became enlarged. In most cases, the intolerance of light was considerable; the margin of the iris was drawn between the chambers like a

tense curtain, diminishing the diameter of the pupil, and sometimes giving the pupillary margin the appearance of being sunk, or drawn deeper towards the bottom of the eye than when in health. Light did not contract the compass of the pupil, not even when the flame of a candle was held before it.

The cornea was put more on the stretch, and had a more glistening appearance than when in health; in some cases, its augmented convexity was very perceptible. This was owing to the aqueous secretion being greater than the power of absorption. At this stage of the disease, the secretion of tears flowing over the cheeks was copious and hot; in the space of a few hours it was mixed with pus, which could be frequently seen before the matter was discharged from between the eye-lids. By laying hold of the eyelashes, and gently raising up the eyelids, the pus could be seen spread on the lining membrane of the palpebræ, in the form of a patch, about the eighth of an inch in diameter.

The nice adaptation of the globe to its appendages had either, by its rolling motions, squeezed out the serous part of the pus, while that of greater density was retained; or it is not improbable that these patches were the concretions of pus, coagulated by the commixture of tears; for the salt in them may be sufficient to cause coagulation of pus, and by this means alter the consistence and appearance of the discharge.

The vessels and meibomian glands situated on the lining membrane of the palpebræ, rose and swelled above its surface, leaving between them hollow spaces, in which pus was collected in the form and manner I have described. But, when these organs were not in this state, and preserved a smooth uniform swelling over the surface of the membrane, and all the parts were of an equal vascularity, pus was then found spread in an extensive thin layer, alike in thickness, but the consistence much softer, and possessed of greater tenuity than that already mentioned. This seems to be the usual character of the pus. It is not improbable that the alteration of membranous structure is the cause of pain, and of the sensation of sand of which the patient complains.

Painful œdematous swellings arose in the integuments round the eye, a shining pale red colour pervaded the surface of the skin, and an intense shooting pain passed through the eyeball and forehead, accompanied with ardent fever, and a strong hard pulse. These symptoms indicated strong inflammation, and required very active means to check their progress.

The daily admissions into the hospital became so numerous, and the cases so severe, as to draw the attention of the military officers of the garrison, to consult and devise with the professional gentlemen the means most likely to arrest and eradicate the disease. A conjecture was then entertained, that the current of cold night air, carried through the barrack windows over the men during sleep, was the cause of the rise and progress of the disease; and, to prevent it from having further effect, orders were given that a number of the windows should be built up half-way, and some completely. But professional opinion preponderated in the belief of the disease having been produced by some noxious quality of the water; and, to prove the correctness of this theory, chemists were employed in analysing the water, which was found to contain no other matter, besides its primary and constituent parts, than a portion of the carbonate of lime; a production naturally to be expected, because the water issues from between beds of that substance.

To prevent the disease from spreading by contact, clean towels were ordered to be distributed occasionally among the men; and, to preserve cleanliness and regularity of conduct, strict regulations were adopted.

All these means, in their application were very well directed, and were prosecuted with active perseverance; but they had not the most distant effect in restraining the disease. It continued to spread indiscriminately, with unremitted violence, among the men.

The sick-list soon mounted so high as to raise the apprehension of the colonel commanding the regiment, that a representation of the unhealthy state of the men would be forwarded to the Horse Guards, and inevitably prevent the regiment from being called into active service. That ground for such a report should not exist, the most powerful remedies with which I was acquainted were adopted in the process of cure.

The difference of atmospherical temperature during the night from that during the day, was sometimes considerable, but not more than gave health and vigour to the troops, particularly as they were well clothed. Chilly air, wafted over the men during sleep, could not generate ophthalmy to the severity and extent in which it prevailed. Exposure like this to the night has brought on other diseases of an inflammatory nature; but how it could produce so much inflammation in the eyes

without extraneous bodies having been carried into them, I could not understand; and, on that account, I concluded this to be but a conjectural inference.

Many of the soldiers were posted on the batteries and other parts of the garrison, which were plastered with lime; the floors were paved with limestone, which formed a smooth white surface, reflecting the light with great intensity; so that a person with an inactive iris, passing quickly from the shade to this strong light, had a very powerful impression made on the retina.

Frequent reiterations of these changes, in warm climates, bring on amaurosis and glaucoma. Though these sudden changes were not the leading causes of the ophthalmy, yet there was no doubt of their being auxiliaries; for the strong light, falling on the retina in an unusual quantity, had a tendency to excite inflammation.

At the season of the year in which the disease prevailed, the sirocco winds blew with considerable violence, drifting great quantities of sand and dust through the streets of the garrison; especially at Cooperage barracks, where the regiment was quartered. This was owing to the great concourse of people, who met there for the various purposes of commerce, and who had constantly in use many carts and waggons, for the conveyance of merchandise.

The men who were not required to mount guard were employed in blowing and raising rock, to erect and repair public buildings; many also laboured in other departments of government, equally exposed to an atmosphere loaded with clouds of dust, and to the frequent emissions of particles of fire, occasioned by the collisions of the workmen's instruments. The ready and imperceptible admission of these floating particles between the eyelids, will be easily conceived by those who have been much in warm countries; as well as how the friction of particles on the outer coats of the eye produces inflammation through the whole structure.

The causes which I have enumerated, appeared to me to have been sufficient to generate and keep up the disease. The means which had been adopted to arrest it had completely failed; and, on that account, a question arose, how did the women and children escape the disease, if the causes were as stated by gentlemen of the profession? The answer was simply this: they were not exposed to the same causes as the men, and to which I have ascribed the disease; and, therefore, I recommended the following experiment as worthy of trial.

That every day, after the men had returned from guard and other public duty, they should rest two hours, in order to cool themselves, and to breakfast. That they should then march to the sea, under the command of a commissioned officer, and bathe for two or three minutes. Every man to carry a vessel with him, and bring home a small quantity of seawater; and to lie down on his back seven or eight times during the day, while his comrade with one hand opened the eyelids, and with the other dropped a little of the sea water on the eyeball with a spoon. That every non-commissioned officer should be held responsible for the regularity of these applications. At the same time, I went frequently round the barracks, and explained to the men the propriety of the means, and showed them the method of opening the eyelids, and throwing in the water. I also acquainted them with the great impropriety of any one washing in his comrade's vessel, or using his towel.

These means operated so speedily, as to put a final stop to the career of the disease in the course of eight days. The daily bathing, however, was continued for some months, which proved very beneficial, both in keeping the men cleanly and healthy, so that they soon became as strong as those of any other regiment in the service.

The treatment of the disease consisted of unremitted adherence to the antiphlogistic regimen, and copious abstractions of blood until syncope was produced. In some patients this diminished action was not necessary; smaller quantities of blood were found sufficient to check the progress of the inflammation: but, in general, it was found necessary to carry bleeding to a considerable length. To act freely on the bowels, and cause counter-irritation, strong cathartics were given; but, in the mean time, care was taken not to excite vomiting, by overloading the stomach with medicines; for, when this was inadvertently brought on, or caused by any spontaneous effort, the fever and inflammatory symptoms ran higher than when vomiting was not induced. But keeping the patient in a constant state of nausea, by small doses of tartar emetic, assisted greatly in subduing the inflammation. To manage this process well, and without vomiting, required the administering hand of the surgeon; for, when it was left to an attendant of the sick, vomiting was occasionally brought on, which tended to frustrate the design. In moderating the circulation,

the warm bath has been found to be of great service; and, when it brought the patient into a state of faintness, the symptoms of the disease were lessened.

The collyria which I found answer best were solutions of the sulphate of zinc and the sulphate of alum. I made experiments on some others, but found none constringe the vessels, and check the discharge, so readily as these. I give alum in the acute stage, the preference to zinc.

A solution of culinary salt has been used as a collyrium for ages.—ED.

On the use of the Secale Cornutum in lingering labour.—By Charles Waller, Surgeon.

Having employed an infusion of the ergot, made according to Dr. Merriman's formula, in two cases of protracted labour without effect, the author made trial of a stronger infusion, "using eight scruples instead of two drachms to six ounces of water," in the subjoined and six other cases;* from which he infers "that the secale cornutum is a remedy which is capable of increasing the force of the uterine contractions in a most remarkable manner, under certain circumstances; but that the effect is doubtful, unless there be some degree of action present. In other words, that, although it will increase the contractions when already present, it will not always renew them when they are suspended.

That the effect is more certain if the infusion be of greater strength than is usually recommended; two drachms of the secale to six ounces of water being barely sufficient for the purpose.

That it appears to be a stimulus peculiarly fitted for irritable, and what are generally termed *nervous* habits.

That the fears entertained by some practitioners of its proving detrimental to the child, are groundless.

But, although it is in general necessary, not only that there should be a disposition for labour, but that this process should have actually commenced, before we can expect the secale cornutum to have any effect upon the uterus, still one solitary case has indirectly come to my knowledge, (and I will vouch for the authenticity of it,) where this remedy was given for the purpose of producing abortion in a female about the second month of utero-gestation; and this effect was accomplished in a few hours after its exhibition."

Mr. Arnott relates a case of popliteal aneurism, in which, however, there is nothing that has not been often told. The patient died of an aneurism of that part of the aorta on which the pericardium is reflected, about three months after the femoral artery had been tied about an inch and a half below the origin of the profunda. Above the ligature, five-eighths of an inch of the calibre of the artery were obliterated, and a little more than two-eighths below it. "The plug in the upper portion of artery terminated superiorly precisely on a level with a small branch going off from the trunk of the vessel. Below the obliterated portion, the artery preserved its natural size, and was quite pervious all the way down to the aneurism, and at one place where it was opened was found to contain blood (liquid). Opposite the aneurism, the artery became again impervious, and for

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* "I was sent for, about three o'clock in the morning, to Mrs. S—, ætat. twenty-six, a woman of delicate habit, who was in labour of her second child. I found the os uteri quite obliterated, and the external parts very dilatable, there being a copious mucous secretion. The pains were weak, and there appeared to be a considerable quantity of liquor amnii. I ruptured the membranes, and, upon examination, found the funis descending before the head. My patient was peculiarly anxious for a living child, the former one having been craniotomised. I pressed the chord beyond the head without difficulty, but it descended with the next pain. I then procured a piece of sponge, and intended to press the chord up beyond the head with it, and there leave it, in order that, by imbibing the moisture, it might so far enlarge as to prevent the descent of the funis; but the parts of generation were so tender, that the attempt gave her great pain: I therefore determined to desist, and to content myself by placing the chord in the most roomy part of the pelvis, as the head advanced. At 9 o'clock, the pains appeared to be slightly increased, but the intervals between them were long; and, as I apprehended that the child's life depended upon its quick transit through the pelvis, I resolved to try the effect of the infusion of ergot, made in the proportion I have just mentioned, (eight scruples to six ounces of water.) I gave her three ounces at nine o'clock, (the head of the child was still above the brim,) and in less than half an hour the pains had increased to the utmost degree in intensity; in fact, I scarcely ever witnessed such violent uterine action. The child was born about ten o'clock, and although at first feeble, it soon recovered, and as well as the mother, did very well."

the extent of upwards of an inch. What remained of the aneurismal sac was of the size of a hen's egg. It formed an abrupt tumour on the vessel. The contents were solid, densely laminated coagula of blood; the section presenting lamellæ of uniform colour and consistence."

Mr. Blackett relates several cases of erysipelas, and although we do not approve of some of his topical applications, such as "litharge, belladonna," &c., we may observe that his practice is generally judicious, but differing, as it does but little, from that of most who are competent of his cotemporaries, it can be of little use to particularise it.

Case of Inversion of the Uterus, with Disruption and Adhesion of the Placenta. By William Church, M. D., of Pittsburgh. Read before the Pittsburgh Medical Society.

At six, p.m. on the 14th of July, 1824, I was called by my friend, Dr. Hannen, to visit a poor woman in Pitt township, Alleghany county: the history of whose case was as follows. About four, a.m., on that morning, after having been in severe labour the whole of the preceding night, she was delivered of her second child, half an hour before the arrival of her midwife. The midwife, on her arrival, endeavoured to deliver the placenta; but, having persevered in her fruitless attempts to deliver it, until eight, a.m. she sent for a physician. The doctor told them that "the retention of the placenta was of no consequence, that it would come away of itself, after the woman became stronger," and took his leave without *ascertaining its state by an examination!* The midwife waited until two, p. m., for the placenta to be thrown off, and then attempted to effect the delivery by main force, by pulling at the funis umbilicalis until she brought away about half of the placenta and inverted the uterus, when profuse hæmorrhage immediately supervened. The remainder of the placenta being adherent to the *fundus uteri*, she forcibly drew it and the *fundus uteri* through the *os externum*, and fixed a ligature on the adherent placenta, which she fastened to the woman's thigh; she did this, she said, "to keep it from slipping up out of reach." Being now much alarmed, she sent for the physician who had visited them, who "was sick and could not come." Dr. Hannen was sent for, and on his arrival, finding the woman's situation truly deplorable, gave her an anodyne, and a tea-spoonful of æther every half hour, and requested that I should be called in consultation.

On my arrival she was without pulse and unable to speak, her extremities were cold, respiration irregular and difficult, and her countenance completely bloodless: she was very restless. The bed and floor were covered with blood. The uterus was completely inverted, with half of the placenta adherent to its fundus. Hot flannels were applied to the extremities, and a table-spoonful of whiskey and water (the only cordial that could be procured) given every few minutes. I removed the ligature that the midwife had applied in the morning, and grasped the placenta and uterus in my hand, gradually pushed it upwards in the axes of the vagina and pelvis until I replaced it in its natural situation, after which I very cautiously detached the placenta in the usual way, and then by briskly rubbing the abdomen with my left hand, while at the same time with the knuckles of my right hand, with the placenta in its grasp, I gently irritated the walls of the uterus, which in about fifteen minutes brought on uterine action, whereby my hand and the placenta were expelled. The operation took up about an hour and a half. No hæmorrhage followed. The uterus was well contracted above the pubes. A compress and bandage were applied over the region of the uterus, and the woman's situation in bed made as comfortable as possible; and before we took our leave she was able to express her thankfulness for what was done for her. Cordials and rich broths were given during the night, and sinapisms applied to the soles of the feet. Next morning we had the pleasure of finding her situation much improved. Pulse perceptible, extremities warm, no sickness at stomach, no hæmorrhage, uterus well contracted, and had slept a little during the night. From this time she gradually improved until the fourth day, when during the operation of a mild laxative, the uterus became relaxed and in consequence thereof profuse hæmorrhage supervened, when Dr. Hannen and myself were hastily sent for. On our arrival we found the abdomen flaccid and the uterine tumour absent. Our patient was in a faint state from the loss of blood. The plug was introduced and brisk frictions made by the hand over the abdomen. A powder composed of ten grains of finely powdered ergot with two grains of sugar of lead, and the fourth of a grain of opium was given every hour. By the time she had taken the fourth powder the uterus was well contracted, and consequently the flooding entirely ceased. But this second hæmorrhage so completely prostrated our patient, that with the utmost difficulty, by the diligent and persevering use of repeated blisters to the

extremities, wine, bark, nourishing diet, &c. she recovered in about six weeks or two months, during which time she was attended by Dr. Hannen.

This case strikingly illustrates the efficacy of the ergot in restraining uterine hæmorrhage, by inducing permanent contraction of the uterus. It is more than probable, had not the placenta been adherent, the woman would have died of hæmorrhage before any assistance could be obtained, as she lived nearly two miles from the city.—*Philadelphia Journal, February.*

Case of apparent Superfœtation. By Joseph Fithian, M. D. of Woodbury, N. J.

It has been a disputed point in physiology, and is to this day, whether superfœtation does ever take place in the animal economy.

We know, that nature, in the production of our race, generally pursues an undeviating and uniform course, which would lead us to believe, that whether two or more children are born at one birth, they are begotten nearly together, if not at the same time.

Many facts, however, of a curious and interesting nature are from time to time communicated, which appear to be exceptions to this general rule; and, among others, the following favours the hypothesis that superfœtation does occasionally occur.

Mrs. W. was delivered of a fine healthy child at the full time without any difficulty attending the birth.

After the labour was over, and the assistants were preparing to get her to bed, they discovered something which, from its uncommon appearance, induced them to call my attention to it.

Upon examining this substance, it proved to be a fœtus three or four inches long, with its membranes and placenta complete; all of a fresh, healthy appearance, and had undoubtedly been alive and healthy up to the time of the labour.

I have frequently seen abortions at every period of gestation, and from the appearance of this fœtus, had I been called to see it without any knowledge of the circumstances, I should without hesitation have pronounced it an abortion at the third or fourth month. It had the large head, small extremities, and general appearance which characterize a fœtus at that age.

I have communicated the above fact, as it occurred to me in my practice. I will leave it for others to draw their inferences.—*Ibid.*

FOREIGN DEPARTMENT.

ANALYSIS OF FOREIGN MEDICAL JOURNALS.

ANNALI UNIVERSALI DI MEDICINA.

Extirpation of the entire alveolary arches of the upper and under jaw-bone, by Prof. G. Regnoli.

R. F. di Saltara, about 35 years of age, was brought to me, rather as an object of curiosity, than with a prospect of deriving any benefit from my professional advice. This poor woman had, from her earliest years, suffered from severe and continual toothachs. Both the milk, and permanent set of teeth had successively been destroyed by caries. When submitted to my inspection, there was enormous swelling of both alveolary arches; a red and bloody fungus sprung from the gums and alveolæ, and covered the stumps of the teeth which remained; the alveolary processes were soft and ulcerated; the cavity of the mouth was much diminished in consequence of the swelling, there being little more than an inch between the fungous masses of the opposite sides. The patient complained of acute pain in the seat of the disease, which was always much exasperated by the process of mastication: the fungus bled on the slightest touch, and constantly poured out an abundance of a very fœtid ichor; mastication was of course almost impossible; the speech was altered, the deformity was visible even when the lips were shut; the appearance of the mouth when open was frightful. The patient was pale and sallow; she had of late been losing flesh rapidly, had had an accession of fever every afternoon, and in short, was suffering in her general health. Nevertheless, neither the tongue, the other neighbouring parts, nor the lymphatic glandular system exhibited any appearances of alteration; all seemed to indicate that the disease was still limited to the alveolæ, teeth, and gums of the two jaw-bones.

Viewing all these circumstances, it was easy to perceive that the patient laboured under an osteo-sarcoma of the alveolary arches, with fungus, and cancerous ulceration of the corresponding gums, and farther, when the present limits in connexion with the rapid progress of the disease to its actual state, was considered, it was obvious, that active and immediate measures were required for the patient's relief. The complete re-

moval of the disease, appeared the sole and only remedy. And, in truth, what other curative means could avail under such distressing circumstances? It would have been but losing precious time to trust to nature alone, or aided by the use of the actual or potential cautery.

I, therefore, advised the patient to enter the hospital of Pesaro, where I had the advantage of the opinions of those skilful surgeons, Signors Gattei and Giorgo, both of whom pronounced the disease mortal within a very short period, unless its removal, however difficult and dangerous, could be accomplished.

The patient being properly prepared for the propo-ed operation, which I determined to perform with the chisel, having found the saw and knife extremely inconvenient instruments on the dead subject, she was seated with her face towards the light, her head resting on Sig. Giorgo's breast, who at the same time compressed the facial arteries. I began by dividing the under lip from the top to the bottom, and detaching it in a great measure from its connexions with the bone; I then ran the knife along the soft parts, that lay over the healthy bone, below the level of the alveolary processes, dividing them and the periosteum at a sweep, and having drawn the saw two or three times across the anterior and most prominent point of the lower jaw, I took a sharp and strong chisel, and by repeated b ows of a mallet, after dividing the soft parts that adhered to the internal surface of the alveolar arch, I detached the entire mass of osteo sarcoma. I left the last grinder of the left side, as it appeared perfectly free of disease. Many where the alveolar arteries that poured out blood, but the hæmorrhage was effectually restrained by the application of the actual cautery, which I further employed, to destroy all suspicious looking points that still remained behind. The disease of the lower jaw being thus removed, I now proceeded to the ablation of that of the upper mandible. The lip being raised by blunt hooks, I carried the knife to the right and left, dividing the gum and periosteum nearly on a level with the palatine arch, and with all caution ran the saw two or three times along the most prominent part of the bone, to procure a groove for the chisel, which, being introduced, was forced along by the mallet, and the whole superior alveolar arch removed. Here again, the bleeding vessels were very numerous, and the same means were employed to stop them. The appearance of the patient at this stage of the operation, was truly pitiable. When the bleeding ceased, I united the under lip by three twisted sutures, and applied the common uniting bandage above all. The patient at this time fell into a slight swoon, from which, however, she speedily recovered. The courage she displayed, throughout the whole operation, was almost incredible.

Symptoms which followed the operation.

1st day.—Severe pain of the head, occasioned probably by the shock from the blows of the mallet, and from the division of the dental nerves. The patient complains of pain in the throat, rather than in the parts operated upon; she had not slept. The pulse in the afternoon was frequent; the face slightly swollen. The patient was bled to the extent of eight ounces, to guard against any increase of fever. The blood presented the buffy coat. A small quantity of liquid aliment was administered, and swallowed with great difficulty. No sleep during the night, but not restless.

2d day.—Tumefaction of the face much increased. The patient had slept some hours in the morning. The pulse having risen in the evening, and the pain having increased, she was bled a second time, and ordered an injection, her bowels not having acted for two days. During the night she coughed a great deal, and never slept. The only food she took was some weak broth.

3d day.—The pain and fever considerable. No rest either through the day or the night. The deglutition less difficult.

4th day.—Pain decreasing; the swelling of the face declining; several eschars detached and spit out; wound in the lip united. The night passed better.

5th day.—Doing well. 6th and 7th.—Swelling almost entirely gone; the patient rose for a little; great quantities of eschars thrown off; appetite returning, and a larger allowance of soup prescribed. 8th and 9th.—The repeated injection of barley water into the mouth was found to facilitate the fall of the eschars; the patient began to take an infusion of bark. 10th. Wound of the mouth clean, and looking well; no fetor of breath. 11th and 12th.—Appetite voracious; a little wine allowed. 13th and 14th.—Patient remained out of bed almost all the day; quantity of food still increased; wound touched with lunar caustic.

15th.—Several pieces of necrosed bone extracted from the upper as well as under jaw. 16th, 17th, and 18th.—Same operation. 19th.—Could shut the mouth completely for the first time. 20th to 23d.—Nothing new; going on well; speech

more intelligible; chews soft bread and meat reduced into little bits. Sleep good; appetite great; all the functions performed with perfect regularity. The menstrual discharge, which had long ceased to flow, now re-appeared 28th.—The cicatrization is complete. 30th.—Extraction of the remaining tooth, as it became painful, and proved an impediment to mastication. 35th.—The patient left the hospital, with every appearance of perfect health; she looks well, emits no disagreeable odour from the mouth; the cicatrix is smooth, pearly, hard, and when compressed, gives no pain to the patient. She chews the ordinary alimentary matters very well; the lips incline slightly inwards; scarcely any deformity is perceptible; the speech is slightly altered, but every day gains in distinctness.

UTERINE HÆMORRHAGE AND TRANSFUSION.

Extract from Mr. WALLER'S *Lecture on Uterine Hæmorrhage; delivered on Thursday Evening, March* 23.

In order to apply a remedy for any complaint, we must first ascertain the cause from which it originated; now, this is obvious enough in the case under consideration; the woman is in danger, *not from disease*, but, simply because the quantity of blood circulating through her vessels, is insufficient for the purposes of life. Now, how is this to be replenished? Is it safe to trust to the powers of digestion and sanguification? If so, all we have to do, is to supply the patient, from time to time, with bland nourishment. But, experience has amply proved, that in many cases this is not effectual; for death takes place before the process of digestion can be completed: you are aware, Gentlemen, that a considerable quantity of blood is required for the production of gastric juice, through the agency of which, this function is performed: now the stomach must in common with every other part of the body, feel the debilitating effects of the hæmorrhage, and its digestive power must be proportionally impaired. Moreover, it very frequently happens that the stomach is so excessively irritable, that it will retain nothing, and hence this source of supply is most effectually cut off.

I do not mean to deny that many, perhaps most cases of uterine hæmorrhage will do well under the above plan of treatment; I am now directing your attention to those extreme cases in which, notwithstanding the adoption of these measures, your patient is not improving, and perhaps is even getting worse. Is there any more direct method, by which the same end may be obtained? Is it practicable, and if so is it safe to replenish the empty state of the vascular system, by the injection of pure blood into the vessels? The practicability of the operation has been long known, and from the published accounts of the trials of transfusion, which were formerly made, it does not appear that it was attended with any danger; no inferences can, however, be drawn from these experiments with regard to its use in hæmorrhage, as they were instituted for a different purpose, viz. for the cure of diseases which were considered incurable by other means. It was usual in these cases, to draw away a certain quantity of what was considered the morbid blood, and in its place, to introduce some that was sound. The source from whence this blood was obtained, was from the carotid artery of different animals, such as the sheep, or the calf. But will blood thus injected into the veins, really be made subservient to the general purposes of the circulation? The experiments of Dr. Blundell prove beyond a doubt, that this is the case in the dog, provided the blood so injected, be taken from an animal *of the same species*. We have, therefore, an undoubted right to presume, in the absence of evidence to the contrary, that human blood injected into human veins, will be made subservient to the purposes of human circulation. Transfusion of blood, therefore, in extreme cases of hæmorrhage ought not to be considered the visionary production of a fanciful imagination, it comes recommended to us upon the broad basis of experiment and of observation, which is the only source of sound physiological investigation, and we shall do well to examine into its merits dispassionately, and not attempt, as some have done, to heap ridicule upon it, merely because it is a *novel remedy*.

Gentlemen, I repeat that it is a *new remedy*, it has never before been employed with the same views, nor with the same means. Brute blood was formerly used, and the object of the operation was to *cure an incurable disease*. Some persons, for want of *arguments* against the operation, have contented themselves with taxing us, in no very courtly terms, with *ignorance* of the former

trials of transfusion, because we stated that the remedy was a new one, inasmuch, as human blood had never before been employed. One of these objectors went the length of asserting, and in a public assembly too, that this operation had been performed 500 times in France, not only with the blood of brutes, but also with that of the human subject. On referring, however, to the original experiments, I found that the number was 500 minus the two cyphers, that in point of fact, it had been tried five times only, and if you will take the trouble of perusing a little pamphlet on the subject, which I published a few months since, you will find these experiments there detailed. This assertion was followed up by another, viz. that it was exceedingly dangerous, and that it produced very dreadful effects upon all who submitted to it. This I will take upon myself peremptorily to deny, it is an *assertion*, and an *assertion only*, utterly destitute of any foundation, in fact; the cases referred to, not only prove that no bad effect followed the operation but that it was sometimes productive of *apparent* benefit.

But I beg leave again to call your attention to the objects for which it was employed, viz. the cure of diseases, and diseases too, which, from their long continuance, had been productive of so much organic lesion, that recovery was impossible; thus, we find it tried on one patient who was labouring under phthisis pulmonalis, on another who was sinking from a mortified state of the intestines, whereas in the cases in which I have recommended its adoption, you must bear in mind that the symptoms under which your patient is labouring, are arising solely from a *defective supply of blood*. The objects of the operation are, therefore, perfectly different. It is quite proper that no new remedy be admitted into practice till its merits have been critically examined, but let it be done fairly; let those who oppose it, do so from principle, let them not endeavour to stifle it with insinuations and unfounded assertions. Truth, Gentlemen, is all we seek; truth compels us to say, that the remedies in common use do not always succeed in hæmorrhage; reason and analogy lead us to hope that the operation of transfusion is practicable, safe, and efficacious, and, therefore, I apprehend we are perfectly justified in recommending its adoption in those extreme cases to which I am alluding. We ask you not to employ it so long as the patient appears to be reviving by the usual means, but we do ask you, when she is evidently sinking, not to omit the trial of this operation from any preconceived prejudice which you may entertain against it.

But, Gentlemen, our opinions respecting the utility of the operation have been still farther strengthened of late, by the occurrence of several cases in which an opportunity has been afforded of putting it to the test of experience, and although they are not yet numerous enough to enable us to bring them forward as a sufficient *answer* to the objections which have been made to the operation, yet the success with which they were attended has been very gratifying to us. The details of these cases have been long before the public, I need not therefore now enter into particulars.

The first was a patient of the City of London and Southwark Midwifery Institution, and occurred in my own district. She was attended by my friend, Mr. Jesse of Manchester, who was at that period my house pupil. Shortly after delivery I was summoned to his assistance, and found the patient in a very alarming state in consequence of a hæmorrhage which had taken place immediately after the birth of the placenta. The means usually recommended were vigorously had recourse to for upwards of an hour and a half, but no permanent benefit was derived, the stimuli which were employed only produced a temporary rising of the pulse, which, after a few seconds, fell again. The operation of transfusion appeared to me to be clearly indicated. Dr. Blundell kindly saw the patient with me, and as the pulse appeared to be getting rather more perceptible and regular, he advised our giving a little more time, but as at the lapse of six hours after the delivery she seemed to be sinking, we thought we should not be justified in omitting the only means which we had left for the purpose of saving her life. The operation was accordingly decided upon. (*The manner of performing it was here shown.*) When four ounces of blood were injected, that is to say, at the introduction of the second syringeful, (for the instrument contains two ounces,) the patient appeared for a minute or so a little distressed, she had sighing with efforts to vomit, though nothing was thrown up. Were these symptoms the effect of the injection, or were they produced by the previous hæmorrhage? This being the first attempt, the question was difficult to answer; and, therefore, as the patient expressed herself comfortable, as her pulse had been reduced ten beats in the minute, and moreover as we were of the opinion that four ounces of blood (though a small

quantity) would be sufficient to give such an impulse to the action of the heart, as to enable it to continue its contractions till the system had recruited itself by the process of digestion, we agreed to leave well alone, and to discontinue the injection, her improvement after the operation was progressive, and *she had not a single attack of syncope afterwards*. Gentlemen, I wish you to direct your attention particularly to this circumstance, as it shows in a most marked manner that the injection of blood was productive of *permanent* benefit, whilst the effects of the stimuli introduced into the stomach were very transitory.

Many of the leading members of the profession appeared to be satisfied with the result of this case, others, on the contrary, could not bring their minds to believe that the injection of so small a quantity, as four ounces of blood, could be of much service. The facts were as I have just stated them; of course every one is at liberty to draw his own conclusions. It is not at all astonishing, that there should be a difference of opinion on the subject, but I may add that the gentlemen who were present at the operation, were decidedly of the opinion, that it saved the patient's life.

The editor of the Medico-Chirurgical Review states, that nothing is proved by this case, but that the operation may be performed without danger; this is *his* opinion, but recollect it is an *opinion only*, one which is opposed to that of some of the most eminent men in our profession. Perhaps I ought not to mention names, but I cannot resist the temptation of giving you the opinion of Dr. Hull of Manchester, and I do this the more readily, because, from this gentleman's practical knowledge of uterine hæmorrhage, and from the high degree of reputation in which he is held by his professional brethren, any observation of his will not be lightly regarded. He approves most decidedly of the *principle* of the operation; and with regard to the particular case in question, he agrees with us in believing that life was preserved by it. He reasons in this manner: "We know, he observes, that in common venesection, if we stop the bleeding as soon as our patient begins to feel faint, that deliquium will often be prevented altogether; but that if we allow even so small a quantity as four ounces more to flow from the orifice, a complete fainting-fit will be produced. Now," says he, and I think with great justice, "if four ounces of blood can make the difference between an *approach to*, and *actual* deliquium, it is not too much to infer, that four ounces may also make the difference between *recoverable* and *irrecoverable* syncope."

The editor of the Medical Repository, however, appears to be the generalissimo of the opposers of this operation, we must, therefore, take a little notice of *him*, and point out a few of his inconsistencies. In noticing the case he observes, that "it is impossible, perhaps, at present, to come to any positive conclusions with respect to this case: for the quantity of blood injected was so small, that we find it difficult to believe it could have been productive of much benefit: whilst, at the same time, the powers of life were so reduced before the operation, that *death seems to have been inevitable, had the patient been abandoned to her fate*." Is not this acknowledging, that the woman was in such a state of exhaustion, that it was highly improbable that she could have been saved by the usual means. He goes on to say, "one thing is indeed manifest, that the operation was productive of no injury, and the *establishment of this fact*, under circumstances of such peculiar danger, is sufficient to entitle the gentleman, to whom we are indebted for it, to the thanks of the profession." After saying thus much, a note is added to the very next page, in which it is stated, that this fact, viz. that the operation was not attended with danger, was satisfactorily enough proved by the earlier experimenters in this way; and finishes, by saying, that he believes the patients referred to would have recovered, if the operation had not been performed.

Now, just for one moment, consider what he has said in the short space of about half a page: 1st, he can come to no positive conclusions on the case; 2ndly, the patient's death seemed inevitable, if she had been left without the operation having been performed; 3dly, that the thanks of the profession are due to the gentleman who brought it forward, for the *establishment of the fact*, that it might, at least, be done without danger; 4thly, that this fact has, however, *long since been established by the earlier experimenters*; and, 5thly, he believes the patient would have recovered, if no operation had been performed. Amidst this mass of contradictions, it is impossible to come to any "positive conclusions" as to his meaning.

A second case occurred to my friend Mr. Doubleday; and here, from the larger quantity of blood injected, and

from the previous good state of the patient's health, (she being of a very robust habit,) the effects were more immediate and decisive, and corresponded exactly with what we were led to expect from a perusal of the experiments which were performed by Dr. Blundell. I will shortly relate the outlines of the case: The patient had lost a very large quantity of blood, both before and during the extraction of the placenta. She was lying in that alarming state, from which she could not be roused by the ordinary stimuli. Transfusion was recommended, and attempted, but the stimulus of the knife seemed to be more powerful than the brandy, for she revived a little, and resisted the operation; under these circumstances, it was determined to give her a little more time, and to persevere with the measures ordinarily had recourse to in these cases. The rally, however, was by no means so decided, as to inspire Mr. Doubleday with much hope of her ultimate recovery; a note which I received from him amply proves this; wherein he requested me to visit the patient with him, stated what had been done, the state the patient was then in, and his apprehensions that it would still be necessary to have recourse to the operation: the correctness of this opinion was confirmed by the result. I have mentioned to you, that it was agreed to use the ordinary means, viz. stimuli and nourishment; but the stomach being in an irritable state, these articles were rejected, and in the course of about six hours after the operation had been attemped, her symptoms were such, as to leave no donbt on the minds of the gentlemen present, that she was on the very verge of dissolution. No time was now lost, fourteen ounces of blood were injected into the vein, and the result was most decisive; her recovery was perfect, and so sudden, as to leave no doubt that it was solely attributable to the injection.

This case convinced the editor of the Medico-Chirurgical, but not the Repository editor; I beg this latter gentleman's pardon, it did indeed convince him, he asserts that "his opinion, with regard to the general inutility of this operation," was correct. I beg to call your attention for a minute or two to his "observations," "and thus," he says, "is it asserted that this woman was suddenly rescued from the hand of death. Upon this point, however, there is some reason to fear that an error in judgment has been committed, or, at least, it must be allowed that the evidence adduced does not sustain the assertions that have been made. On the contrary, the main facts of the case all tend to show that the woman was not in a dying state when the operation was performed; whilst, in opposition to them, we have nothing but *opinions*, and opinions upon which, in the present instance, very little reliance can be placed. For the opinions of Mr. Doubleday and his friend, are not entitled to more weight at three p. m., when the operation was performed, than can be claimed for them at eight a. m. when it was attempted, and when, as the event proved, these opinions were erroneous."

Now, Gentlemen, what were the *facts* of the case? Do they not prove, in a most convincing manner, that Mr. Doubleday's *opinion was correct*. He is called to a serious case of hæmorrhage, he proposes an operation, and is resisted. The patient rallies a little, (and this is a very common occurrence, even where the case terminates fatally), and it is agreed to give her nourishment; this her stomach rejects, and at the lapse of six or seven hours, instead of her improving, she is rapidly getting worse; the operation is now agreed to, and from that moment she improves. I will take upon myself to assert, that the *facts* of this case show clearly that the woman *was* in a dying state when the operation was performed; and in opposition to these *facts*, we have nothing but the *opinions* of the editor of the Medical Repository, opinions upon which, in the present instance, very little reliance can be placed, for although he either is, or at any rate has been, *consulting* physician to a lying-in-institution, yet he has been heard to declare *that he never was present at a case of widwifery in his life*. Every one will give him credit for the truth of this assertion, who has read that most ridiculous and scurrilous tirade against the practice and the practitioners of midwifery, which was sent forth to the world in the number of his journal for January 1825.

"The existence of the patient," he adds, "for so many hours after the hæmorrhage had ceased, and the perfect and sudden recovery which took place, indicate in the strongest manner that the state of exhaustion so much dwelt upon was rather *apparent* than *real*." Now I would ask, whether this very circumstance of her being so long in this state does not of itself go very far to prove that it was *real* and not *apparent* exhaustion? With regard to her sudden recovery, this is in perfect unison with the experiments of Dr. Blundell, and is strikingly illustrative of those principles he has deduce

from them. "In fine," he concludes, "this case of transfusion ultimately proves nothing, but that Dr. Blundell himself, the patron of the art, may be deceived with respect to the necessity of performing the operation." This assertion I conceive to be the *ne plus ultra* of editorial arrogance.

A third case has been made public, in which this operation was successful, this he condescends (kind man) to honour with a "passive record." But in the following sentence you will see "he is at his dirty work again." He says, "whilst upon this subject, it may not be amiss to notice that Messrs. Waller and Doubleday, to whom we are indebted for the two first cases that occurred in this city, have commenced a course of practical midwifery *in partnership*; whether the cases were the result of the union, or the union the result of the cases, we will not pretend to determine." You will here see, gentlemen, that in order to convey an unjust insinuation against the professional reputation of Mr. Doubleday and myself, he has not hesitated to publish a falsehood.

When this first appeared, we were anxious, for the advice of our professional friends, as to the propriety of our noticing it. Their opinion was, that the inuendo was too mean and contemptible to deserve our notice. I mention it here just to show you in what sort of a spirit his observations on the cases of transfusion were penned.

I have already exceeded my limits, and will, therefore, shortly tell you that a fourth case has happened to Dr. Blundell, and here also the patient rallied. A fifth and last, and I am sorry to add an unsuccessful case, occurred a short time since to Mr. Doubleday, but there was here scarcely a *probability* of any thing being of service, the patient's body was icy cold, and she was lying perfectly senseless. The injection did not appear to have any effect. A good deal of time had been lost, which will therefore, I hope, caution us against *voluntarily* deferring an operation too long. This was not the case in the present instance. I ought also to mention that Mr. D. was badly supplied with blood.

ROYAL COLLEGE OF SURGEONS AND LORDS OF THE ADMIRALTY.

It will be recollected, that on Saturday the 18th of *February*, a great majority of the Surgeons of London, expressed a most unequivocal opinion of the inefficient, imbecile, and injurious management of their College, and determined to apply to Parliament for a NEW CHARTER. The proceedings were made public. The defective state of the College became the subject of general conversation; and no sooner reached the ears of Government, than the LORDS OF THE ADMIRALTY, perceiving that a *diploma* from *such* a College could be no test of ability, on Wednesday Feb. 23, only five days after the meeting, issued the following order for the *better regulation* of the education of *Naval Surgeons* feeling that it would be altogether unsafe to leave it in the hands of the College. On the conduct of the "Ruling Powers," therefore, this document may be considered to express the opinion of Government! *read it* Court of Examiners—ye promoters of "Sound Chirurgical Knowledge," and feel shame if ye can.

Naval Surgeons.

Victualling Office, Feb. 23, 1826.

The Right Honourable the Lords Commissioners of the Admiralty having been pleased to direct, that no person be admitted to be a candidate for the situation of assistant surgeon in the royal navy, who shall not produce a certificate from one of the Royal Colleges of Surgeons of London, Edinburgh, and Dublin, of his fitness for that office; nor for that of surgeon, unless he shall produce a diploma, or certificate, from one of the said Royal Colleges, founded on an examination to be passed subsequently to his appointment of assistant surgeon, as to the candidate's fitness for the situation of surgeon in the navy; and that in every case, the candidate producing such certificate, or diploma, shall also undergo a further examination before the medical commissioners of the Victualling board, touching his qualifications in all the ne-

cessary branches and points of medicine and surgery, for each of the steps in the naval medical service; the commissioners for victualling His Majesty's navy, &c., do hereby signify, for the information of those persons to whom it may relate, that these regulations and directions will be strictly adhered to in future; and further, that previously to the admission of assistant surgeons into the navy, it will be required that they should have received a *classical education*, and possess in particular a competent knowledge of *Latin*; also,

That they should have served an apprenticeship, or have been employed in an apothecary's shop for not less than two years.

That their age should not be less than 20 years, nor more than 26 years.

That they should have attended an Hospital in London, Edinburgh, Dublin, or Glasgow, for 12 months; and

That they should have attended Lectures, &c., on the following subjects, for periods not less than hereunder stated, viz.

Anatomy	18	Months.
Surgery	18	"
Theory of Medicine ..	12	"
Practice of ditto	12	"
Chemistry	6	"
Materia Medica	6	"
Midwifery	6	"
Actual dissections of the human body.....	6	"

Although the above are the only qualifications which are absolutely required in Candidates for the appointment of Assistant Surgeon, a preference will be given to those who, by possessing a knowledge of diseases of the Eye, and of any branch of science connected with the profession, such as botany, medical jurisprudence, natural philosophy, &c. appear to be more peculiarly eligible for admission into the service.

It is also to be observed that, by the rules of the service, no Assistant Surgeon can be promoted to the rank of Surgeon until he shall have served full three years in the former capacity; and the Board have resolved that not any Diploma or Certificate of examination from either of the aforesaid Royal Colleges, shall be admitted towards the qualification for Surgeon, unless the Diploma or Certificate shall be obtained on an examination passed after a period of not less than three years' service as Assistant Surgeon.

By command of the Board,

M. WALLER CLIFTON.

HOSPITAL REPORTS.

GUY'S HOSPITAL.

Singular Affection of the Heart and large Vessels.

Elizabeth Inglesby, the subject of this disease, is about 59 years of age, of a spare habit, and dark complexion; her occupation is that of a washerwoman. She states that she has been subject to palpitation of the heart from infancy, and that it has been not a little increased by the laborious nature of her employment, being obliged at times to lift very heavy burdens. In this state she continued for many years without any manifest change, at length a pulsation made its appearance above the clavicle, on the left side of the neck, near the outer edge of the sterno-mastoid muscle, which was followed shortly afterwards by a similar affection on the right side; about this time too, her hands and feet were frequently very cold, and within the last month, she has been much troubled with a cough and difficulty of breathing, increased upon the slightest exertion. The pulsation on both sides of the neck is remarkably quick, and synchronous with the heart's action, beating at the rate of 180 strokes in a minute; it is also very powerful, particularly on the left side, where at each impulse of the heart, a small tumor is produced by the dilatation of the subclavian artery, which, being formed with such rapidity, gives it the appearance of a permanent swelling. No pulse can be felt at the wrist.

March 8th. Six ounces of blood to be taken from the arm, and ten drops of the tincture of Hyoscyamus to be administered in the saline mixture three times a day; low diet.

13th. The pulsation in the neck is considerably reduced, both in force and frequency, making only 72 strokes in a minute: the pulse may now be distinctly felt at the wrist.

17th. Her pulse is 63, and regular; the pulsation in the neck has completely subsided, the cough and difficult respiration have also left her, and she is now free from either local or constitutional disturbance.

ST. THOMAS'S HOSPITAL.

Compression of the Brain.

Francis M'Donald, a robust, middle-aged man of fair complexion, fell backwards from a horse, and received a violent blow upon the head. He was taken

up in a state of insensibility, and shortly after was bled by a surgeon, who took 14 ounces of blood from him.

On his arrival, he was comatose, and we learned from the attendants that he had not been sensible since the accident; he had lost all voluntary power, and was totally insensible to the strongest impressions. His pulse was small and feeble, his extremities were cold, he had a pale countenance, and a contracted pupil, which was insensible to the influence of a strong light, and his respiration was rather laborious. Warmth was ordered by the dresser to be applied to the extremities. Mr. Tyrrell saw the patient at 11 o'clock in the forenoon, by which time reaction had taken place: his pulse was 92, the extremities had become warm, and the colour had returned to his cheeks; his breathing had now become stertorous, his pupils remaining contracted, but there was no mark of returning sensation. The surgeon now ordered the head to be shaven around the injured part, and upon examination he was found to have received the blow opposite the coronal suture on the left side, midway between the superior and inferior angles of the parietal bone, where a considerable tumor was formed, but no laceration of the scalp.

In the afternoon, at half-past two o'clock, we again visited the patient, there was a great deal of congestion about the head and neck, which were of a livid colour, and very turgid: there was also a high degree of stertor; foaming at the mouth, and dilated pupil. The pulse was 120, small, and easily compressed; the dresser now loosened the bandage from his arm, and allowed about ten ounces of blood to flow, the immediate effect of which was, that the face and neck became pale, the pulse sunk to below 100, and the stertor was considerably diminished. In half an hour the man died.

Post-mortem Examination.

Upon cutting through the scalp, it was very much thickened, and between this and the pericranium, *a large quantity of grumous blood was found extravasated, covering the whole of the upper surface of the cranium.* Externally there was neither fracture nor depression, and the only thing to be observed, was a slight separation of the coronal suture. On raising the calvaria, it was perfectly sound on the inside, throughout. On the contrary side of the head, but opposite to the seat of injury, a large quantity (about three ounces) of coagulated blood, was extravasated between the bone and dura mater, forming a considerable depression in the brain. The dura mater at this part seemed rough, and several branches of the spheno-spinal artery were lacerated, but the membrane itself was not torn through. Having removed this covering, a small quantity of blood was found diffused over the upper and middle part of the right hemisphere, and at the base of the brain, with slight injury to the cortical substance at the upper and under surfaces of the middle lobe: the brain at other parts being perfectly sound. A transverse section of the brain being made, the medullary substance exhibited numerous bloody points; a small quantity of blood was also found in the lateral ventricles.

To the Editor of THE LANCET.

SIR,—A case of fungus hæmatodes, at St. Bartholomew's Hospital is related in your 134th Number, on the treatment of which, I hope you will insert, in your truly valuable Publication, the following observations:—Mr. Earle told the pupils, "that every case of fungus hæmatodes, in which amputation of the limb had been performed, had ended fatally." This is a most extraordinary assertion; as under the care of many surgeons, *several cases* of the kind have terminated *favourably*. One case, in particular, is deserving of notice. A young clergyman residing (I believe) in Herts, had fungus hæmatodes in the knee, extending farup the thigh; several surgeons were of opinion that an operation would be useless. Sir William Blizard, *alone* recommended amputation. The operation was performed, and the valuable life of the patient was saved. Here was a case which, had Mr. Earle's doctrine being adhered to, must have been lost.

But let me ask, why, in the present instance, was not this man's limb removed as soon as the nature of the disease was discovered? After Mr. Earle had opened the tumour, (the propriety of which step appears to me very doubtful, why was the dresser allowed to puncture it again?

The patient was sure to die if the limb was not removed, and most probably would have been saved, if the operation had been resorted to in the early stage. Surely the surgeons might have discovered that the disease was fungus hæmatodes, without making any opening: at least, *most* cases of the kind are to be so ascertained.

I remain, Sir,
Your constant Reader, and Admirer,
CHIRURGUS.